



*Back to flex\_ability*

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Since 1975

**CATÁLOGO  
CATALOGUE  
2021**

**MÁS DE 240 ARTÍCULOS SIEMPRE DISPONIBLES EN STOCK**  
**OVER 240 ITEMS IMMEDIATELY AVAILABLE**



IPL comienza el nuevo año con una selección aún más rica  
de artículos **INMEDIATAMENTE DISPONIBLES EN STOCK**  
dentro de la amplia gama de productos IPL

IPL starts the new year with an even richer selection  
of items **IMMEDIATELY AVAILABLE IN STOCK**  
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**IPL, CALIDAD ITALIANA GARANTIZADA / IPL, ITALIAN QUALITY GUARANTEED**

# Nuestra Compañía / The Company

**Fundada a mediados de los años '70 , IPL S.p.A. hoy es una empresa especializada en la producción y distribución de tubos flexibles en TPU, PVC y otros materiales plásticos.**

IPL trabaja en los sectores industrial y alimenticio desde hace más de 40 años, ofreciendo una gama completa de productos, respetando al máximo los estándares cualitativos y respondiendo con eficacia y flexibilidad a las exigencias de nuestros clientes.

Además de la alta calidad de las materias primas usadas en la fabricación de nuestros productos, IPL ofrece a sus clientes todo su "know how" adquirido a través de los años de experiencia , durante un proceso constante de desarrollo de materiales innovativos, tecnología de vanguardia , y formación de todo el equipo humano, a fin de poder garantizar fiabilidad y asistencia en sus productos.

IPL, empresa certificada ISO 9001:2015 desde hace más de 20 años, ha implementado su sistema de producción en el ámbito de los tubos alimentarios y farmacéuticos, adoptando las líneas de actuación previstas en la certificación GMP (Good Manufacturing Practices), en cuanto al control de calidad de sus procesos,

Nuestra compañía dispone de un amplia gama de soluciones flexibles que se adaptan a las más diversas aplicaciones en el ámbito industrial , siendo los principales sectores: la agricultura, industria plástica, industria maderera, ventilación y aire acondicionado, industria náutica, tratamiento de líquidos, industria alimentaria, industria farmacéutica y petroquímica entre otros.

IPL ofrece a sus propios clientes, soluciones personalizadas que permiten satisfacer las necesidades más exigentes con la posibilidad de producir y servir el producto más adecuado en cada momento. Gracias a nuestro departamento de desarrollo e innovación, la empresa ofrece información detallada y actualizada de sus productos, materiales y normativa vigente.

**Casi medio siglo de ideas, entusiasmo y valores, han hecho posible una historia de éxito italiana.**

*Established in mid-Seventies, IPL S.p.A. is today a global leading manufacturer and supplier of high technical flexible hoses in TPU, PVC and other plastic materials.*

*For over 40 years IPL has been operating in the industrial and food sectors, through a wide range of products, meeting the highest quality standards and responding with accuracy, flexibility and effectiveness to the evolution of the customers' needs.*

*In addition to the proven high-quality of the raw materials used and of its products, IPL has always been placing at the service of its customers all the resources and expertise gained over the years, throughout an incessant pursuit of innovative materials, cutting-edge technologies and refining the professional skills of its Team, to ensure adequate support and reliability of its products.*

*IPL holds ISO 9001:2015 and for almost 10 years IPL has voluntarily brought its production system in line with requirements of GMP certification. In particular, GMP (Good Manufacturing Practices) cover production processes, traceability and quality control for pharmaceutical and foodstuff hoses.*

*The Headquarters and manufacturing plant are located in Besozzo (VA) covering a large area of 55.000 mq, with a well-equipped R&D laboratory, Sales Department and operations areas, as well as two large warehouses for stocking raw materials and finished products.*

*IPL offers a wide and complete range of flexible solutions, covering the most application fields and serving different industrial segments: agriculture, plastics industry, woodworking, air and ventilation, shipyards, liquid handling, food and pharma industries and petrochemical are just some of the market areas we actively serve.*

*IPL provides to its customers tailor-made solutions, expert assistance and constant training, to meet the most demanding requests and supply the most appropriate product, depending on the application.*

*Thanks to an efficient R&D Dep., IPL provides promptly detailed and updated information about products, materials and current regulations.*

***Nearly half a century of ideas, enthusiasm and shared values have laid the basis for a story of quality and success Made in Italy.***

## Índice de mangueras / Hoses index

| manguera<br>hose                                                                   | cód.<br>code | sección<br>section  | rango Ø int. mm<br>I.D. range mm | pág.<br>pg. |
|------------------------------------------------------------------------------------|--------------|---------------------|----------------------------------|-------------|
| <b>ABRASIÓN / ABRASION</b>                                                         |              |                     |                                  |             |
|    | <b>VZ</b>    | VULCANO® Z          | 40-500                           | <b>12</b>   |
|    | <b>ZR</b>    | VULCANO® ZR         | 40-500                           | <b>13</b>   |
|    | <b>W4</b>    | VULCANO® S1         | 25-500                           | <b>14</b>   |
|    | <b>VM FR</b> | VULCANO® M FR       | 25-406                           | <b>15</b>   |
|    | <b>VR FR</b> | VULCANO® R FR       | 25-500                           | <b>16</b>   |
|    | <b>VB</b>    | VULCANO® 09 EST     | 20-450                           | <b>17</b>   |
|    | <b>VC</b>    | VULCANO® 15 EST     | 20-500                           | <b>18</b>   |
|    | <b>TH 01</b> | VULCANO® STONE      | 38-250                           | <b>19</b>   |
|   | <b>TH 07</b> | VULCANO® STONE PLUS | 40-250                           | <b>20</b>   |
|  | <b>EB</b>    | VULCANO® 09 EL      | 38-203                           | <b>21</b>   |
|  | <b>EC</b>    | VULCANO® 15 EL      | 38-203                           | <b>22</b>   |
|  | <b>N7</b>    | NEXT 07             | 50,8-305                         | <b>23</b>   |
|  | <b>N9</b>    | NEXT 09             | 25,4-305                         | <b>24</b>   |
|  | <b>N5</b>    | NEXT 15             | 40-203                           | <b>25</b>   |
|  | <b>OU</b>    | EOLO PU EST         | 13-300                           | <b>26</b>   |
|  | <b>OU 86</b> | EOLO PU EST ASW     | 13-300                           | <b>27</b>   |
|  | <b>OP</b>    | EOLO PUP EST        | 30-254                           | <b>28</b>   |
|  | <b>UR</b>    | URANO PU            | 38,1-152,4                       | <b>29</b>   |
|  | <b>UH</b>    | URANO HD SUPER      | 63,5-152                         | <b>30</b>   |
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|  | <b>EL</b>    | EOLO L              | 25-300                           | <b>35</b>   |
|  | <b>EO</b>    | EOLO                | 13-300                           | <b>36</b>   |
|  | <b>EE</b>    | EOLO SE             | 16-250                           | <b>37</b>   |

| manguera<br>hose                                                                    | cód.<br>code | sección<br>section           | rango Ø int. mm<br>I.D. range mm | pág.<br>pg. |
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| <b>ALTAS TEMPERATURAS / HIGH TEMPERATURES</b>                                       |              |                              |                                  |             |
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|  | <b>A1 09</b> | APOLLO NL1 OIL <b>NEW !</b>  | 38,1-203,2                       | <b>55</b>   |
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|  | <b>PH</b>    | PLUTONE PO                   | 20-102                           | <b>57</b>   |
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# Índice de mangueras / Hoses index

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| manguera<br>hose                                                                    | cód.<br>code           | sección<br>section                          | rango Ø int. mm<br>I.D. range mm | pág.<br>pg. |
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## Industrias \ Applications field

|                                                            |                                                                                     |
|------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Agricultura / Agriculture                                  |  |
| Construcción / Construction                                |  |
| Alimentación / Food                                        |  |
| Industrias / Industry                                      |  |
| Líquidos / Fluids handling                                 |  |
| Industria naval / Shipyard                                 |  |
| Náutica / Marine                                           |  |
| Química y carburantes / Chemical, oils and fuel            |  |
| Farmacéutica / Pharmaceutical                              |  |
| Bombeo y aspiración de aguas residuales / Waste Management |  |
| Madera / Woodworking                                       |  |

## Iconos de mangueras / Hoses icons

|                                                                                      |                                                                                                                  |
|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
|    | Resistente a altas temperaturas<br><i>High temperature resistant</i>                                             |
|    | Autoextinguible<br><i>Flame retardant</i>                                                                        |
|   | Bio compound<br><i>Bio compound</i>                                                                              |
|  | Alta presión<br><i>High pressure</i>                                                                             |
|  | Alta presión y temperaturas<br><i>High pressure and temperatures</i>                                             |
|  | Resistente a aceites<br><i>Oil proof</i>                                                                         |
|  | Aspiración ligera de material abrasivo<br><i>Light duty suction of abrasives</i>                                 |
|  | Aspiración ligera de material abrasivo de grado alimentario<br><i>Light duty suction of food grade abrasives</i> |
|  | Aspiración de material con alto poder abrasivo<br><i>Heavy duty suction of abrasives</i>                         |





Aspiración de material de grado alimenta-  
rio con alto poder abrasivo  
*Heavy duty suction of food grade abrasives*



Aspiración de material de altísimo poder  
abrasivo  
*Extra heavy duty suction of abrasives*



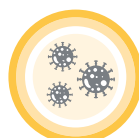
Aspiración fuerte de líquidos  
*Heavy duty suction of liquids*



Superficie interna completamente lisa  
*Completely smooth bore*



Superficie interna completamente lisa  
apta para el contacto con alimentos  
*Completely food grade smooth bore*



Resistente al ataque microbico  
*Microbes resistance*



Resistente a productos químicos  
*Resistant to chemicals*



Resistente a la abrasión  
*Abrasion resistant*



Espesor de pared constante 0,4 mm  
*Constant wall thickness 0,4 mm*



Espiral de acero galvanizado  
*Zinc plated steel spiral*



Espiral de acero cobreado  
*Copper plated steel spiral*



Espiral de acero recubierta de tpu  
*TPU coated steel spiral*



Goma tpe-s de grado alimentario  
*Food grade TPE-S*



Producto más popular  
*Most popular product*



Formulación especial antiolor  
*Odorsafe formulation*



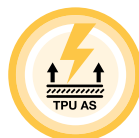
Silicona curada platino  
*Platinum cured silicone*



Estrucura especial  
*Special construction*



Goma tpe-s grado farmaceutico  
*Pharma grade TPE-S*



Tpu con propiedades antiestáticas  
permanentes  
*TPU with permanent antistatic properties*



Tpu con propiedades electroconductoras  
permanentes  
*TPU with permanent electrical conductive properties*



PVC / NBR  
*PVC / NBR*



Flexibilidad elevada  
*Highly flexible*



Muy flexible y ligero  
*Highly flexible and light*

**NEW !**

# NAUTILUS ODORSAFE

(COD. LU 01)

- Mantiene una buena flexibilidad incluso a bajas temperaturas
  - Muy resistente al aplastamiento
  - Resistente a numerosas substancias químicas
  - Robusto y resistente a los agentes atmosféricos
- Flexible even at low temperatures
  - Crush and kink resistant
  - Good resistance to most chemicals
  - Durable and resistant to weather agents



**MANGUERA SANITARIA, PARA LA  
DESCARGA DE AGUA Y LÍQUIDOS  
EN EL SECTOR NÁUTICO**

**IDEAL SOLUTION DESIGNED  
FOR SANITATION SYSTEMS  
ON MARINE TOILETS**





# Guía de selección de mangueras

## Hose selection guide

La información contenida en la siguiente tabla, se basa en el mejor conocimiento del IPL, será responsabilidad del usuario final, verificar que sea el producto idóneo para la aplicación requerida.

Las aplicaciones tienen lugar fuera del control de IPL y son responsabilidad del usuario final.

A menos que se indique lo contrario, los valores que figuran en las hojas de datos se han determinado según normas estandarizadas y a 23 °C, 50% de humedad.

*The information given by IPL team are based on the best knowledge, but do not exempt the client to carry out controls on IPL's products in order to estimate the real technical suitability for the intended application.*

*The applications are out of IPL control possibility and fall under the responsibility of the end user.*

*If not otherwise indicated, the values of IPL's technical data sheets are estimated in accordance with standard rules and at 23 °C, 50% RH.*

# ESTRUCTURA DE LA MANGUERA / HOSE CONSTRUCTION

| MANGUERA              | CÓD.    | PAG. | TPU A BASE DE ÉSTER | TPU A BASE DE ÉTER | PVC-P | BIO PVC | TPE-S | SILICONA | ESPIRAL DE ACERO | ESPIRAL DE ACERO INOXIDABLE | ESPIRAL DE PVC RÍGIDO | HILO DE POLIÉSTER | INTERIOR LISO | TRANSP. | PARED AS | AS CON HILO DE COBRE |
|-----------------------|---------|------|---------------------|--------------------|-------|---------|-------|----------|------------------|-----------------------------|-----------------------|-------------------|---------------|---------|----------|----------------------|
| HOSE                  | CODE    | PAG. | TPU EST             | TPU ET             | PVC   | BIO PVC | TPE   | SILICONE | STEEL SPIRAL     | INOX SPIRAL                 | PVC SPIRAL            | POLYESTER YARN    | SMOOTH        | CLEAR   | AS WALL  | AS COPPER WIRE       |
| APOLLO OIL            | O1 01   | 54   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| APOLLO NL1            | A1 01   | 63   |                     |                    | ✓     |         |       |          |                  |                             |                       |                   | ✓             |         |          | ✓                    |
| APOLLO NL 1 OIL       | A1 09   | 55   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| APOLLO SE             | AX 01   | 62   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| APOLLO SUPERFLEX      | AS 01   | 64   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| APOLLO SUPERFLEX 2    | SF 01   | 65   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| ARIANNA 20 BAR        | AV 01   | 74   |                     |                    | ✓     |         |       |          |                  |                             |                       | ✓                 | ✓             |         |          |                      |
| ARIANNA 40 BAR        | AQ 01   | 75   |                     |                    | ✓     |         |       |          |                  |                             |                       | ✓                 | ✓             |         |          |                      |
| ARIANNA 80 BAR        | AO 01   | 76   |                     |                    | ✓     |         |       |          |                  |                             |                       | ✓                 | ✓             |         |          |                      |
| CLEANWASH             | YO CH   | 94   |                     |                    | ✓     |         |       |          |                  |                             |                       | ✓                 | ✓             |         |          |                      |
| ARIANNA BIO           | B1 01   | 92   |                     |                    |       | ✓       |       |          |                  |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| ARIANNA PU            | AU 01   | 31   | ✓                   |                    |       |         |       |          |                  |                             |                       | ✓                 | ✓             |         |          |                      |
| ARIANNA TA            | AS 01   | 93   |                     |                    | ✓     |         |       |          |                  |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| BACCO                 | BF 01   | 99   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| EOLO                  | EO 01   | 36   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| EOLO PVC AF           | EF 75   | 52   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| EOLO HT 400°C         | H4 01   | 44   |                     |                    |       |         |       |          | ✓                |                             |                       | ✓                 |               |         |          |                      |
| EOLO HT 450°C         | H5 01   | 45   |                     |                    |       |         |       |          | ✓                |                             |                       | ✓                 |               |         |          |                      |
| EOLO HT 180°C         | HI 01   | 41   | ✓                   |                    |       |         |       |          | ✓                |                             |                       | ✓                 |               |         |          |                      |
| EOLO CLIP HYPALON     | EY 01   | 43   |                     |                    |       |         |       |          | ✓                |                             |                       |                   |               |         |          |                      |
| EOLO L                | EL 01   | 35   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| EOLO PU AF            | FF01    | 51   |                     | ✓                  |       |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| EOLO PU EST           | OU 01   | 26   | ✓                   |                    |       |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| EOLO PU EST ASW       | OU 86   | 27   | ✓                   |                    |       |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       | ✓        | ✓                    |
| EOLO PU FOOD          | EU 01   | 83   |                     | ✓                  |       |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| EOLO PUP EST          | OP 01   | 28   | ✓                   |                    |       |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| EOLO PUP FOOD         | EP 01   | 84   |                     | ✓                  |       |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| EOLO SE               | EE 01   | 37   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| EOLO SL               | ES 01   | 34   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| EOLO TERMORESISTENTE  | TR 01   | 40   |                     |                    | ✓     |         |       |          | ✓                |                             |                       | ✓                 | ✓             |         |          | ✓                    |
| GIOVE SE              | GI 06   | 68   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| IPL CRYSTAL - CLEAR55 | CL09-07 | 107  |                     |                    |       |         | ✓     |          |                  |                             |                       | ✓                 | ✓             |         |          | ✓                    |
| MARTE A.O.            | MT 01   | 58   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| NETTUNO ENO           | NQ EN   | 98   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| NETTUNO               | NQ 01   | 97   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| NETTUNO PU            | NR 01   | 95   | ✓                   |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| NETTUNO SE            | NX NF   | 69   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| NEXT 07               | N7 01   | 23   | ✓                   |                    |       |         |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       | ✓        |                      |
| NEXT 09               | N9 01   | 24   | ✓                   |                    |       |         |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       | ✓        |                      |
| NEXT 09 ET            | N9 ET   | 82   |                     | ✓                  |       |         |       |          |                  |                             |                       | ✓                 | ✓             | ✓       | ✓        |                      |
| NEXT 15               | N5 01   | 25   | ✓                   |                    |       |         |       |          | ✓                | ✓                           |                       | ✓                 | ✓             | ✓       | ✓        |                      |
| PHARMAPRESS           | HA 01   | 103  |                     |                    |       |         | ✓     |          |                  |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| PHARMASTEEL           | HS 01   | 104  |                     |                    |       |         | ✓     |          |                  | ✓                           |                       | ✓                 | ✓             | ✓       |          |                      |
| PHARMASTEEL PRESS     | HK 01   | 105  |                     |                    |       |         | ✓     |          |                  | ✓                           |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE A             | PY 01   | 86   |                     |                    | ✓     |         |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE A SE          | PY 06   | 87   |                     |                    | ✓     |         |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE BIO           | B2 01   | 90   |                     |                    |       | ✓       |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE PF            | PF 01   | 89   |                     |                    |       |         | ✓     |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE PK            | PK 01   | 56   |                     |                    |       |         | ✓     |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE PO            | PH 01   | 57   |                     |                    | ✓     |         |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          | ✓                    |
| PLUTONE PRESS BIO     | B3 01   | 91   |                     |                    |       | ✓       |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE PU            | PQ 01   | 88   |                     | ✓                  |       |         |       |          |                  | ✓                           |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE PU PRESS      | PN 01   | 102  |                     | ✓                  |       |         |       |          |                  | ✓                           |                       | ✓                 | ✓             | ✓       |          |                      |
| PLUTONE PW            | PW 01   | 67   |                     |                    | ✓     |         |       |          | ✓                |                             |                       | ✓                 | ✓             | ✓       |          |                      |
| NAUTILUS ODORSAFE     | LU 01   | 73   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          |                      |
| SATURNO IDRO SE       | SI 06   | 72   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          |                      |
| SATURNO L             | XL 01   | 70   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| SATURNO L SE          | XL 06   | 71   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| SATURNO YELLOW        | SY 01   | 96   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          | ✓                    |
| SIL - LIFE W          | WK 01   | 106  |                     |                    |       |         |       | ✓        |                  | ✓                           |                       | ✓                 | ✓             |         |          |                      |
| SILDUCT 2S            | P4 35   | 46   |                     |                    |       |         |       | ✓        | ✓                |                             |                       | ✓                 | ✓             |         |          |                      |
| SPIRALPRESS ENO       | BS EN   | 100  |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          |                      |
| SPIRALPRESS OIL       | SQ 01   | 59   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          |                      |
| SPIRALPRESS WT        | WT 01   | 66   |                     |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             |         |          |                      |
| URANO HD SUPER        | UH 01   | 30   | ✓                   |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |
| URANO PU              | UR 01   | 29   | ✓                   |                    | ✓     |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          |                      |
| VULCANO 04 ET         | VE 01   | 78   |                     | ✓                  |       |         |       |          | ✓                |                             |                       |                   | ✓             |         | ✓        |                      |
| VULCANO AF PLUS       | UF 07   | 48   |                     | ✓                  |       |         |       |          | ✓                |                             |                       |                   | ✓             |         |          |                      |
| VULCANO 09 AF         | U9 01   | 49   |                     | ✓                  |       |         |       |          | ✓                |                             |                       |                   | ✓             |         |          |                      |
| VULCANO 09 EL         | EB 01   | 21   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               |         |          |                      |
| VULCANO 09 EST        | VB 01   | 17   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       | *R / R   |                      |
| VULCANO 09 ET         | VK 01   | 79   |                     | ✓                  |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO 12 ET         | VO 01   | 80   |                     | ✓                  |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO 15 EL         | EC 01   | 22   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               |         |          |                      |
| VULCANO 15 EST        | VC 01   | 18   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       | *R / R   |                      |
| VULCANO 15 ET         | VI 01   | 81   |                     | ✓                  |       |         |       |          | ✓                |                             |                       |                   |               |         |          |                      |
| VULCANO M FR          | VM FR   | 15   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO R FR          | VR FR   | 16   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO S1            | W4 01   | 14   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO STONE         | TH 01   | 19   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO STONE PLUS    | TH 07   | 20   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO Z             | VZ 01   | 12   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO ZR            | ZR 01   | 13   | ✓                   |                    |       |         |       |          | ✓                |                             |                       |                   |               | ✓       |          |                      |
| VULCANO PVC AF        | VP 04   | 50   |                     |                    |       |         | ✓     |          | ✓                |                             |                       |                   |               |         |          |                      |
| VULCANO TPR-A         | VT 01   | 42   |                     |                    |       |         | ✓     |          | ✓                |                             |                       |                   |               |         |          |                      |
| ZEUS PU FOOD          | ZE 01   | 85   |                     | ✓                  |       |         |       |          |                  |                             | ✓                     |                   | ✓             | ✓       |          | ✓                    |

## PROPIEDADES FÍSICAS Y MECÁNICAS / PHYSICAL AND MECHANICAL PROPERTIES

| MATERIAL EL PERMANENTE | FLEXIBLE | RESISTENCIA AL APLASTAMIENTO | HT | AUTO-EXTINGUIBLE | RESISTENCIA A LA ABRASIÓN | RESISTENCIA A LOS MICROBIOS | RESISTENCIA A LA HIDROLISIS | CALIDAD ALIMENTARIA | USP Class VI | MANGUERA              | Cód.    | Pá.  | RESISTENCIA QUÍMICA |
|------------------------|----------|------------------------------|----|------------------|---------------------------|-----------------------------|-----------------------------|---------------------|--------------|-----------------------|---------|------|---------------------|
| CONDUCTIVE             | FLEX     | CRUSH PROOF                  | HT | FLAME RET.       | ABRASION                  | MICROBES                    | HYDROLYSIS                  | FOODGRADE           |              | HOSE                  | CODE    | PAG. | CHEM. RESIST.       |
|                        | ★★★      | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | APOLLO OIL            | 01 01   | 54   |                     |
|                        | ★★★      | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | APPOLLO NL1           | A1 01   | 63   |                     |
|                        | ★★★      | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | APOLLO NL 1 OIL       | A1 09   | 55   |                     |
|                        | ★★★      | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | APOLLO SE             | AX 01   | 62   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | APOLLO SUPERFLEX      | AS 01   | 64   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | APOLLO SUPERFLEX 2    | SF 01   | 65   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             |                     |              | ARIANNA 20 BAR        | AV 01   | 74   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             |                     |              | ARIANNA 40 BAR        | AQ 01   | 75   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             |                     |              | ARIANNA 80 BAR        | AO 01   | 76   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             | ✓                   |              | CLEANWASH             | YO CH   | 94   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             | ✓                   |              | ARIANNA BIO           | B1 01   | 92   |                     |
|                        | ★★★★     |                              |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | ARIANNA PU            | AU 01   | 31   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             | ✓                   |              | ARIANNA TA            | AS 01   | 93   |                     |
|                        | ★★★      | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   |              | BACCO                 | BF 01   | 99   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             |                     |              | EOL0                  | EO 01   | 36   |                     |
|                        | ★★★★     | ★★                           |    | ✓                | ★★                        |                             |                             |                     |              | EOL0 PVC AF           | EF 75   | 52   |                     |
|                        | ★★★★     | ★★                           | ✓  | ✓                | ★★                        |                             |                             |                     |              | EOL0 HT 400°C         | H4 01   | 44   |                     |
|                        | ★★★★     | ★★                           | ✓  | ✓                | ★★                        |                             |                             |                     |              | EOL0 HT 450°C         | H5 01   | 45   |                     |
|                        | ★★★★     |                              | ✓  | ✓                | ★★                        |                             |                             |                     |              | EOL0 HT 180°C         | HI 01   | 41   |                     |
|                        | ★★★★     | ★★                           | ✓  | ✓                | ★★                        |                             |                             |                     |              | EOL0 CLIP HYPALON     | EY 01   | 43   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             |                     |              | EOL0 L                | EL 01   | 35   |                     |
|                        | ★★★★     |                              |    | ✓                | ★★★★                      | ✓                           | ✓                           |                     |              | EOL0 PU AF            | FF01    | 51   |                     |
|                        | ★★★★     |                              |    |                  | ★★★★                      |                             |                             |                     |              | EOL0 PU EST           | OU 01   | 26   |                     |
|                        | ★★★★     |                              |    |                  | ★★★★                      |                             |                             |                     |              | EOL0 PU EST ASW       | OU 86   | 27   |                     |
|                        | ★★★★     |                              |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | EOL0 PU FOOD          | EU 01   | 83   |                     |
|                        | ★★★★     |                              |    |                  | ★★★★                      |                             |                             |                     |              | EOL0 PUP EST          | OP 01   | 28   |                     |
|                        | ★★★★     |                              |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | EOL0 PUP FOOD         | EP 01   | 84   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             |                     |              | EOL0 SE               | EE 01   | 37   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             |                     |              | EOL0 SL               | ES 01   | 34   |                     |
|                        | ★★★★     |                              | ✓  | ✓                | ★★                        |                             |                             |                     |              | EOL0 TERMORESISTENTE  | TR 01   | 40   |                     |
|                        | ★★       | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | GIOVE SE              | GI 06   | 68   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★                        |                             |                             | ✓                   | ✓            | IPL CRYSTAL - CLEAR55 | CL09-07 | 107  |                     |
|                        | ★★       | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | MARTE A.O.            | MT 01   | 58   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             | ✓                   |              | NETTUNO ENO           | NQ EN   | 98   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             | ✓                   |              | NETTUNO               | NQ 01   | 97   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | NETTUNO PU            | NR 01   | 95   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★                        |                             |                             |                     |              | NETTUNO SE            | NX NF   | 69   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             | ✓                           |                     |              | NEXT 07               | N7 01   | 23   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             | ✓                           |                     |              | NEXT 09               | N9 01   | 24   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             | ✓                           | ✓                   |              | NEXT 09 ET            | N9 ET   | 82   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★★★                      |                             | ✓                           |                     |              | NEXT 15               | N5 01   | 25   |                     |
|                        | ★★★★     |                              |    |                  | ★★                        |                             |                             | ✓                   | ✓            | PHARMAPRESS           | HA 01   | 103  |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   | ✓            | PHARMASTEEL           | HS 01   | 104  |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   | ✓            | PHARMASTEEL PRESS     | HK 01   | 105  |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   |              | PLUTONE A             | PY 01   | 86   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   |              | PLUTONE A SE          | PY 06   | 87   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   |              | PLUTONE BIO           | B2 01   | 90   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   |              | PLUTONE PF            | PF 01   | 89   |                     |
|                        | ★★★★     | ★★★★                         |    |                  | ★★                        |                             |                             |                     |              | PLUTONE PK            | PK 01   | 56   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | PLUTONE P0            | PH 01   | 57   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             | ✓                   |              | PLUTONE PRESS BIO     | B3 01   | 91   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | PLUTONE PU            | PQ 01   | 88   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | PLUTONE PU PRESS      | PN 01   | 102  |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | PLUTONE PW            | PW 01   | 67   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | NAUTILUS ODORSAFE     | LU 01   | 73   |                     |
|                        | ★★★★     | ★★★                          |    |                  | ★★                        |                             |                             |                     |              | SATURNO IDRO SE       | SI 06   | 72   |                     |
|                        | ★★       | ★★                           |    |                  | ★★                        |                             |                             |                     |              | SATURNO L             | XL 01   | 70   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★                        |                             |                             |                     |              | SATURNO L SE          | XL 06   | 71   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★                        |                             |                             |                     |              | SATURNO YELLOW        | SY 01   | 96   |                     |
|                        | ★★★★     | ★★★                          | ✓  |                  | ★★                        | ✓                           | ✓                           | ✓                   | ✓            | SIL - LIFE W          | WK 01   | 106  |                     |
|                        | ★★★★     | ★★                           | ✓  |                  | ★★                        |                             |                             |                     |              | SILDUCT 2S            | P4 35   | 46   |                     |
|                        | ★★★★     | ★★★★                         |    |                  | ★★                        |                             |                             | ✓                   |              | SPIRALPRESS ENO       | BS EN   | 100  |                     |
|                        | ★★★★     | ★★★★                         |    |                  | ★★                        |                             |                             | ✓                   |              | SPIRALPRESS OIL       | SQ 01   | 59   |                     |
|                        | ★★★★     | ★★★★                         |    |                  | ★★                        |                             |                             | ✓                   |              | SPIRALPRESS WT        | WT 01   | 66   |                     |
|                        | ★★       | ★★★★                         |    |                  | ★★★★                      | ✓                           | ✓                           |                     |              | URANO HD SUPER        | UH 01   | 30   |                     |
|                        | ★★       | ★★★★                         |    |                  | ★★★★                      | ✓                           | ✓                           |                     |              | URANO PU              | UR 01   | 29   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | VULCANO 04 ET         | VE 01   | 78   |                     |
|                        | ★★★★     | ★★                           |    | ✓                | ★★★★                      | ✓                           | ✓                           |                     |              | VULCANO AF PLUS       | UF 07   | 48   |                     |
|                        | ★★★★     | ★★                           |    | ✓                | ★★★★                      | ✓                           | ✓                           |                     |              | VULCANO 09 AF         | U9 01   | 49   |                     |
| ✓                      | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO 09 EL         | EB 01   | 21   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             | ✓                           |                     |              | VULCANO 09 EST        | VB 01   | 17   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | VULCANO 09 ET         | VK 01   | 79   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             | ✓                           |                     |              | VULCANO 12 ET         | VO 01   | 80   |                     |
| ✓                      | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO 15 EL         | EC 01   | 22   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             | ✓                           |                     |              | VULCANO 15 EST        | VC 01   | 18   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | VULCANO 15 ET         | VI 01   | 81   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO M FR          | VM FR   | 15   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO R FR          | VR FR   | 16   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO S1            | W4 01   | 14   |                     |
|                        | ★★       | ★★★★                         |    |                  | ★★★★                      | ✓                           | ✓                           |                     |              | VULCANO STONE         | TH 01   | 19   |                     |
|                        | ★★       | ★★★★                         |    |                  | ★★★★                      | ✓                           | ✓                           |                     |              | VULCANO STONE PLUS    | TH 07   | 20   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO Z             | VZ 01   | 12   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO ZR            | ZR 01   | 13   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      |                             |                             |                     |              | VULCANO PVC AF        | VP 04   | 50   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★                        |                             |                             |                     |              | VULCANO TPR-A         | VT 01   | 42   |                     |
|                        | ★★★★     | ★★                           |    |                  | ★★★★                      | ✓                           | ✓                           | ✓                   |              | ZEUS PU FOOD          | ZE 01   | 85   |                     |

Ver tabla de la página 119 a la página 123/see the chart from page 119 to page 123



# CLEANWASH

(COD. YO CH)

**NUEVA CUBIERTA  
EXTERIOR**

**NEW  
OUTER COVER**

**Nueva cubierta exterior en formulación especial resistente a los productos grasos, que garantiza una mayor resistencia de la manguera durante las operaciones de limpieza y desinfección en la industria alimentaria.**

*New outer cover made with a special grease-proof formulation, to make the hose more resistant during cleaning and disinfection operations in the food processing industries.*





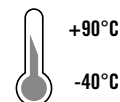
# Abrasión Abrasion

**VULCANO® Z**  
**VULCANO® ZR**  
**VULCANO® S1**  
**VULCANO® M FR**  
**VULCANO® R FR**  
**VULCANO® 09 EST**  
**VULCANO® 15 EST**  
**VULCANO® STONE**  
**VULCANO® STONE PLUS**  
**VULCANO® 09 EL**

**VULCANO® 15 EL**  
**NEXT 07**  
**NEXT 09**  
**NEXT 15**  
**EOLO PU EST**  
**EOLO PU EST ASW**  
**EOLO PUP EST**  
**URANO PU**  
**URANO HD SUPER**  
**ARIANNA PU**



# VULCANO® Z (Cod. VZ)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cód. F2 W2 - Ø 76-400

**Tubo transparente de TPU a base de éster reforzado con una espiral de acero galvanizado;** espesor de pared de 0.35 mm a 0.50 mm. Óptima flexibilidad y comprimibilidad (aprox. 5:1) para facilitar el transporte y el almacenaje. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Óptima resistencia a la abrasión, a los aceites minerales, al ozono, al envejecimiento y a los agentes atmosféricos.

- Industria de la madera, pequeños aspiradores industriales y para plantas industriales de aspiración ligera de material abrasivo. Usado como vaina de protección.

*Transparent ester based TPU duct reinforced with a zinc coloured steel spiral. Wall thickness from 0,35 to 0,50 mm. Very flexible and axially compressible (about 5:1) for easy handling and cost effective stocking and transporting. It can be conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral. Resistant to abrasion, ageing, mineral oils, ozone and atmospheric agents.*

*Good resistance to abrasion, ageing, ozone and atmospheric agents.*

- Woodworking, dedusting, small industrial cleaning and light suction plants; used as protection sleeve

Espiral de acero galvanizado / Zinc plated steel spiral

TPU a base de éster / Ester based TPU hose

## Ficha técnica / Technical data

| Código         | Ø int.    | Min esp.     | Peso   | Vacio | R. de curvatura    | Lg. Rollo   | Vol.           | Abrazaderas doble puente W2 | JP      |
|----------------|-----------|--------------|--------|-------|--------------------|-------------|----------------|-----------------------------|---------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.  | Bending            | Coil lgth.  | Vol.           | Double bridge W2            |         |
|                | mm/inch   | mm           | g/m    | mm    | m H <sub>2</sub> O | m           | m <sup>3</sup> |                             |         |
| VZ010400000000 | 40        | 0,35         | 185    | 0,4   | 20                 | 20          | 0,09           | -                           |         |
| VZ010500000000 | 50        | 0,35         | 225    | 0,4   | 25                 | 20          | 0,11           | -                           |         |
| VZ010510000000 | 51        | 0,35         | 230    | 0,4   | 26                 | 20          | 0,11           | -                           |         |
| VZ010600000000 | 60        | 0,35         | 275    | 0,4   | 30                 | 20          | 0,13           | -                           |         |
| VZ010630000000 | 63        | 0,35         | 285    | 0,4   | 32                 | 20          | 0,18           | -                           |         |
| VZ010650000000 | 65*       | 0,35         | 295    | 0,4   | 33                 | 20          | 0,19           | -                           |         |
| VZ010700000000 | 70/2.3/4" | 0,35         | 360    | 0,4   | 35                 | 20          | 0,2            | -                           |         |
| VZ010760000000 | 76        | 0,35         | 385    | 0,4   | 38                 | 20          | 0,22           | -                           |         |
| VZ010800000000 | 80        | 0,35         | 405    | 0,4   | 40                 | 20          | 0,23           | F2 W2 076.0 090.0           |         |
| VZ010820000000 | 82*       | 0,35         | 415    | 0,4   | 41                 | 20          | 0,23           |                             |         |
| VZ010900000000 | 90        | 0,35         | 455    | 0,4   | 45                 | 20          | 0,29           |                             |         |
| VZ011000000000 | 100       | 0,4          | 510    | 0,3   | 50                 | 15          | 0,32           |                             |         |
| VZ011020000000 | 102/4"    | 0,4          | 520    | 0,3   | 51                 | 15          | 0,32           |                             |         |
| VZ011040000000 | 104*      | 0,4          | 530    | 0,3   | 52                 | 15          | 0,33           | F2 W2 100.0 127.0           |         |
| VZ011100000000 | 110       | 0,4          | 560    | 0,3   | 55                 | 15          | 0,35           |                             |         |
| VZ011200000000 | 120       | 0,4          | 605    | 0,25  | 60                 | 15          | 0,37           |                             | 10/15 m |
| VZ011270000000 | 127/5"    | 0,4          | 640    | 0,25  | 64                 | 15          | 0,39           |                             |         |
| VZ011300000000 | 130       | 0,4          | 660    | 0,2   | 65                 | 15          | 0,41           |                             |         |
| VZ011400000000 | 140       | 0,4          | 710    | 0,2   | 70                 | 15          | 0,66           |                             |         |
| VZ011500000000 | 150       | 0,4          | 755    | 0,2   | 75                 | 15          | 0,7            |                             |         |
| VZ011520000000 | 152/6"    | 0,4          | 765    | 0,2   | 76                 | 15          | 0,71           | F2 W2 130.0 190.0           |         |
| VZ011600000000 | 160       | 0,45         | 895    | 0,15  | 80                 | 15          | 0,75           |                             |         |
| VZ011700000000 | 170*      | 0,45         | 950    | 0,15  | 85                 | 15          | 0,94           |                             |         |
| VZ011800000000 | 180       | 0,45         | 1005   | 0,15  | 90                 | 15          | 0,99           |                             |         |
| VZ012000000000 | 200       | 0,45         | 1110   | 0,1   | 100                | 15          | 1,1            |                             |         |
| VZ012030000000 | 203/8"    | 0,45         | 1125   | 0,1   | 102                | 15          | 1,11           |                             |         |
| VZ012100000000 | 210*      | 0,45         | 1160   | 0,1   | 105                | 10          | 1,15           | F2 W2 200.0 230.0           |         |
| VZ012200000000 | 220       | 0,45         | 1215   | 0,1   | 110                | 10          | 1,2            |                             |         |
| VZ012280000000 | 228*      | 0,45         | 1260   | 0,1   | 114                | 10          | 1,24           |                             |         |
| VZ012500000000 | 250       | 0,5          | 1310   | 0,1   | 125                | 10 m compr. | 0,154          |                             |         |
| VZ012540000000 | 254/10"   | 0,5          | 1330   | 0,1   | 127                | 10 m compr. | 0,159          |                             |         |
| VZ012790000000 | 279*      | 0,5          | 1460   | 0,08  | 140                | 10 m compr. | 0,19           | F2 W2 250.0 330.0           |         |
| VZ013000000000 | 300       | 0,5          | 1565   | 0,08  | 150                | 10 m compr. | 0,218          |                             |         |
| VZ013050000000 | 305/12"   | 0,5          | 1590   | 0,08  | 153                | 10 m compr. | 0,225          |                             |         |
| VZ013150000000 | 315*      | 0,5          | 1640   | 0,07  | 158                | 10 m compr. | 0,24           |                             |         |
| VZ013500000000 | 350       | 0,5          | 1815   | 0,07  | 175                | 10 m compr. | 0,293          | F2 W2 350.0 410.0           |         |
| VZ014000000000 | 400       | 0,5          | 2125   | 0,06  | 200                | 10 m compr. | 0,379          |                             |         |
| VZ014500000000 | 450*      | 0,5          | 2640   | 0,06  | 225                | 6 m compr.  | 0,347          | -                           |         |
| VZ015000000000 | 500*      | 0,5          | 2925   | 0,06  | 250                | 6 m compr.  | 0,426          | -                           |         |

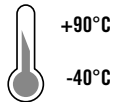
\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

**JP** disponible en stock / available on stock



# VULCANO® ZR (Cod. ZR)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cód. F2 W2 - Ø 76-400

**Tubo transparente de TPU a base de éster reforzado con una espiral de acero cobreado;** espesor de pared de 0.35 mm a 0.50 mm. Óptima flexibilidad y comprimibilidad (aprox. 5:1) para facilitar el transporte y el almacenaje. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Óptima resistencia a la abrasión, a los aceites minerales, al ozono, al envejecimiento y a los agentes atmosféricos.

- Industria de la madera, pequeños aspiradores industriales y para plantas industriales de aspiración ligera de material abrasivo. Usado como vaina de protección.

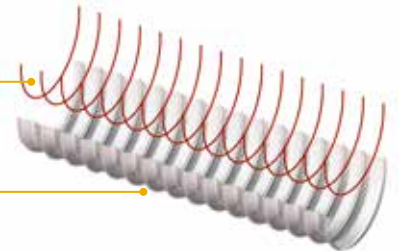
*Transparent ester based TPU duct reinforced with a copper coloured steel spiral. Wall thickness from 0,35 to 0,50 mm. Very flexible and axially compressible (about 5:1) for easy handling and cost effective stocking and transporting. It can be conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral. Resistant to abrasion, ageing, ozone and atmospheric agents.*

*Good resistance to abrasion, ageing, mineral oils, ozone and atmospheric agents.*

- Woodworking, dedusting, small industrial cleaning and light suction plants; used as protection sleeve

Espiral de acero cobreado / Copper plated steel spiral

TPU a base de éster / Ester based TPU hose



## Ficha técnica / Technical data

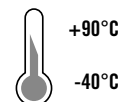
| Código         | Ø int.    | Min esp.     | Peso   | Vacio | R. de curvatura    | Lg. Rollo   | Vol.  | Abrazaderas doble puente W2 |  |
|----------------|-----------|--------------|--------|-------|--------------------|-------------|-------|-----------------------------|--------------------------------------------------------------------------------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.  | Bending            | Coil lgth.  | Vol.  | Double bridge W2            |                                                                                      |
|                | mm/inch   | mm           | g/m    | mm    | m H <sub>2</sub> O | m           | m³    |                             |                                                                                      |
| ZR010400000000 | 40*       | 0,35         | 160    | 0,4   | 20                 | 20          | 0,09  | -                           |                                                                                      |
| ZR010500000000 | 50        | 0,35         | 195    | 0,4   | 25                 | 20          | 0,11  | -                           |                                                                                      |
| ZR010600000000 | 60        | 0,35         | 240    | 0,4   | 30                 | 20          | 0,13  | -                           |                                                                                      |
| ZR010630000000 | 63        | 0,35         | 250    | 0,4   | 32                 | 20          | 0,18  | -                           |                                                                                      |
| ZR010650000000 | 65*       | 0,35         | 260    | 0,4   | 33                 | 20          | 0,19  | -                           |                                                                                      |
| ZR010700000000 | 70/2.3/4" | 0,35         | 360    | 0,4   | 35                 | 20          | 0,2   | -                           |                                                                                      |
| ZR010760000000 | 76        | 0,35         | 385    | 0,4   | 38                 | 20          | 0,22  |                             |                                                                                      |
| ZR010800000000 | 80        | 0,35         | 405    | 0,4   | 40                 | 20          | 0,23  | F2 W2 076.0 090.0           | 10/20 m                                                                              |
| ZR010820000000 | 82*       | 0,35         | 415    | 0,4   | 41                 | 20          | 0,23  |                             |                                                                                      |
| ZR010900000000 | 90        | 0,35         | 455    | 0,4   | 45                 | 20          | 0,29  |                             |                                                                                      |
| ZR011000000000 | 100       | 0,35         | 475    | 0,3   | 50                 | 15          | 0,48  |                             | 10/15 m                                                                              |
| ZR011020000000 | 102/4"    | 0,4          | 520    | 0,3   | 51                 | 15          | 0,48  |                             |                                                                                      |
| ZR011040000000 | 104*      | 0,4          | 530    | 0,3   | 52                 | 15          | -     | F2 W2 100.0 127.0           |                                                                                      |
| ZR011100000000 | 110       | 0,4          | 560    | 0,3   | 55                 | 15          | 0,52  |                             |                                                                                      |
| ZR011150000000 | 115*      | 0,4          | 580    | 0,25  | 58                 | 15          | -     |                             |                                                                                      |
| ZR011200000000 | 120       | 0,4          | 605    | 0,25  | 60                 | 15          | 0,56  |                             | 10/15 m                                                                              |
| ZR011270000000 | 127/5"    | 0,4          | 640    | 0,25  | 64                 | 15          | 0,59  |                             |                                                                                      |
| ZR011300000000 | 130       | 0,4          | 660    | 0,2   | 65                 | 15          | 0,61  |                             |                                                                                      |
| ZR011400000000 | 140       | 0,4          | 710    | 0,2   | 70                 | 15          | 0,66  |                             |                                                                                      |
| ZR011500000000 | 150       | 0,4          | 755    | 0,2   | 75                 | 15          | 0,7   | F2 W2 130.0 190.0           | 10/15 m                                                                              |
| ZR011520000000 | 152/6"    | 0,4          | 765    | 0,2   | 76                 | 15          | 0,71  |                             |                                                                                      |
| ZR011600000000 | 160       | 0,45         | 895    | 0,15  | 80                 | 15          | 0,75  |                             |                                                                                      |
| ZR011750000000 | 175*      | 0,45         | 975    | 0,15  | 88                 | 15          | 0,82  |                             |                                                                                      |
| ZR011800000000 | 180       | 0,45         | 1005   | 0,15  | 90                 | 15          | 0,84  |                             |                                                                                      |
| ZR012000000000 | 200       | 0,45         | 1110   | 0,1   | 100                | 15          | 1,1   |                             | 10/15 m                                                                              |
| ZR012030000000 | 203*/8"   | 0,45         | 1125   | 0,1   | 102                | 15          | 1,11  | F2 W2 200.0 230.0           |                                                                                      |
| ZR012200000000 | 220       | 0,45         | 1215   | 0,1   | 110                | 15          | 1,2   |                             |                                                                                      |
| ZR012250000000 | 225*      | 0,45         | 1240   | 0,1   | 113                | 15          | 1,22  |                             |                                                                                      |
| ZR012280000000 | 228*      | 0,45         | 1260   | 0,1   | 114                | 10          | 1,24  |                             |                                                                                      |
| ZR012500000000 | 250       | 0,5          | 1310   | 0,1   | 125                | 10          | 0,154 |                             |                                                                                      |
| ZR012540000000 | 254*/10"  | 0,5          | 1330   | 0,1   | 127                | 10          | 0,159 |                             |                                                                                      |
| ZR012790000000 | 279*      | 0,5          | 1460   | 0,08  | 140                | 10          | 0,19  | F2 W2 250.0 330.0           |                                                                                      |
| ZR013000000000 | 300       | 0,5          | 1565   | 0,08  | 150                | 10          | 0,218 |                             |                                                                                      |
| ZR013050000000 | 305*/12"  | 0,5          | 1590   | 0,08  | 153                | 10          | 0,225 |                             |                                                                                      |
| ZR013150000000 | 315*      | 0,5          | 1640   | 0,08  | 158                | 10          | 0,24  |                             |                                                                                      |
| ZR013250000000 | 325*      | 0,5          | 1690   | 0,07  | 163                | 10          | 0,254 |                             |                                                                                      |
| ZR013500000000 | 350*      | 0,5          | 1815   | 0,07  | 175                | 10 m compr. | 0,293 | F2 W2 350.0 410.0           |                                                                                      |
| ZR014000000000 | 400*      | 0,5          | 2125   | 0,06  | 200                | 10 m compr. | 0,379 |                             |                                                                                      |
| ZR014500000000 | 450*      | 0,5          | 2640   | 0,06  | 225                | 6 m compr.  | 0,347 |                             |                                                                                      |
| ZR015000000000 | 500*      | 0,5          | 2925   | 0,06  | 250                | 6 m compr.  | 0,426 | -                           |                                                                                      |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock

# VULCANO® S1 (Cod. W4)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cód. F2 W2 - Ø 76-400

**Tubo transparente de TPU a base de éster reforzado con espiral de acero cobreado.** Espesor de pared constante de 0,4 mm en todos los diámetros. Robusto, flexible y comprimible (aprox 5:1) para facilitar el transporte y el almacenaje. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Óptima resistencia a la abrasión, a los aceites minerales, al ozono, al envejecimiento y a los agentes atmosféricos.

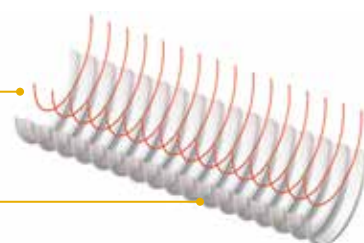
• Industria de la madera, pequeños aspiradores industriales y para plantas industriales de aspiración ligera de material abrasivo. Usado como vaina de protección.

**Transparent ester based TPU duct reinforced with a copper plated steel spiral.** Constant wall thickness 0,4 mm for all the diameters. Very sturdy, flexible, and axially compressible (about 5:1) for easy handling and cost effective stocking and transporting. It can be made conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral. Resistant to abrasion, mineral oils, ageing, ozone and atmospheric agents.

• Woodworking, dedusting, small industrial cleaning and suction plants. Used as protection sleeve.

Espiras de acero cobreado / Copper plated steel spiral

TPU a base de éster / Ester based TPU hose



Ficha técnica / Technical data

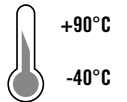
| Código         | Ø int.    | Min esp.     | Peso   | Vacio | R. de curvatura    | Lg. Rollo   | Vol.           | Abrazaderas doble puente W2 |
|----------------|-----------|--------------|--------|-------|--------------------|-------------|----------------|-----------------------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.  | Bending            | Coil lgth.  | Vol.           | Double bridge W2            |
|                | mm/inch   | mm           | g/m    | mm    | m H <sub>2</sub> O | m           | m <sup>3</sup> |                             |
| W4010250000000 | 25*       | 0,4          | 130    | 0,4   | 25                 | 20          | 0,05           | -                           |
| W4010300000000 | 30*       | 0,4          | 155    | 0,4   | 25                 | 20          | 0,07           | -                           |
| W4010320000000 | 32*       | 0,4          | 160    | 0,4   | 25                 | 20          | 0,07           | -                           |
| W4010350000000 | 35*       | 0,4          | 175    | 0,4   | 30                 | 20          | 0,08           | -                           |
| W4010380000000 | 38*       | 0,4          | 190    | 0,4   | 30                 | 20          | 0,08           | -                           |
| W4010400000000 | 40*       | 0,4          | 195    | 0,4   | 32                 | 20          | 0,09           | -                           |
| W4010450000000 | 45*       | 0,4          | 220    | 0,4   | 36                 | 20          | 0,1            | -                           |
| W4010510000000 | 51        | 0,4          | 205    | 0,4   | 40                 | 20          | 0,11           | -                           |
| W4010600000000 | 60        | 0,4          | 240    | 0,4   | 50                 | 20          | 0,17           | -                           |
| W4010630000000 | 63        | 0,4          | 250    | 0,4   | 55                 | 20          | 0,18           | -                           |
| W4010650000000 | 65*       | 0,4          | 255    | 0,4   | 56                 | 20          | 0,19           | -                           |
| W4010700000000 | 70/2.3/4" | 0,4          | 360    | 0,4   | 60                 | 20          | 0,2            | -                           |
| W4010760000000 | 76        | 0,4          | 390    | 0,4   | 65                 | 20          | 0,22           | -                           |
| W4010800000000 | 80        | 0,4          | 410    | 0,4   | 65                 | 20          | 0,23           | -                           |
| W4010820000000 | 82*       | 0,4          | 420    | 0,4   | 65                 | 20          | 0,23           | F2 W2 076.0 090.0           |
| W4010900000000 | 90        | 0,4          | 460    | 0,4   | 75                 | 20          | 0,28           | -                           |
| W4011000000000 | 100*      | 0,4          | 505    | 0,3   | 85                 | 15          | 0,31           | -                           |
| W4011020000000 | 102/4"    | 0,4          | 515    | 0,3   | 85                 | 15          | 0,32           | -                           |
| W4011100000000 | 110       | 0,4          | 555    | 0,3   | 90                 | 15          | 0,34           | -                           |
| W4011150000000 | 115*      | 0,4          | 580    | 0,3   | 95                 | 15          | 0,35           | F2 W2 100.0 127.0           |
| W4011200000000 | 120       | 0,4          | 600    | 0,25  | 100                | 15          | 0,37           | -                           |
| W4011270000000 | 127/5"    | 0,4          | 635    | 0,25  | 105                | 15          | 0,39           | -                           |
| W4011300000000 | 130       | 0,4          | 650    | 0,2   | 105                | 15          | 0,40           | -                           |
| W4011400000000 | 140       | 0,4          | 700    | 0,2   | 115                | 15          | 0,64           | -                           |
| W4011520000000 | 152/6"    | 0,4          | 755    | 0,2   | 125                | 15          | 0,69           | -                           |
| W4011600000000 | 160       | 0,4          | 870    | 0,15  | 130                | 15          | 0,73           | F2 W2 130.0 190.0           |
| W4011650000000 | 165*      | 0,4          | 900    | 0,15  | 130                | 15          | 0,75           | -                           |
| W4011700000000 | 170*      | 0,4          | 925    | 0,15  | 130                | 15          | 0,91           | -                           |
| W4011800000000 | 180       | 0,4          | 975    | 0,15  | 150                | 15          | 0,96           | -                           |
| W4011820000000 | 182*      | 0,4          | 990    | 0,15  | 150                | 15          | 0,97           | -                           |
| W4012030000000 | 203/8"    | 0,4          | 1105   | 0,1   | 165                | 15          | 1,09           | -                           |
| W4012200000000 | 220*      | 0,4          | 1195   | 0,1   | 185                | 10 m compr. | 0,115          | F2 W2 200.0 230.0           |
| W4012280000000 | 228*      | 0,4          | 1235   | 0,1   | 185                | 10 m compr. | 0,124          | -                           |
| W4012540000000 | 254/10"   | 0,4          | 1375   | 0,1   | 210                | 10 m compr. | 0,152          | -                           |
| W4012790000000 | 279*      | 0,4          | 1505   | 0,08  | 230                | 10 m compr. | 0,182          | F2 W2 250.0 330.0           |
| W4013050000000 | 305/12"   | 0,4          | 1645   | 0,08  | 250                | 10 m compr. | 0,218          | -                           |
| W4013150000000 | 315*      | 0,4          | 1700   | 0,07  | 275                | 10 m compr. | 0,232          | -                           |
| W4013560000000 | 356*/14"  | 0,4          | 1915   | 0,07  | 300                | 10 m compr. | 0,295          | F2 W2 350.0 410.0           |
| W4014060000000 | 406*      | 0,4          | 2180   | 0,06  | 350                | 10 m compr. | 0,381          | -                           |
| W4014500000000 | 450*      | 0,4          | 2640   | 0,06  | 350                | 10 m compr. | 0,466          | -                           |
| W4015000000000 | 500*      | 0,4          | 2930   | 0,06  | 350                | 10 m compr. | 0,572          | -                           |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# VULCANO® M FR

(Cod. VM FR)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cód. F2 W2 - Ø 76-400

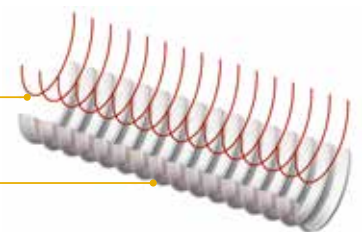
Tubo translucido de TPU a base éster, reforzado con una espiral de acero recubierta de TPU de color cobre para asegurar la máxima adhesión con la pared; flexibilidad elevada, maneable, ligero y comprimible (5:1). Óptima resistencia a la abrasión, a los aceites minerales, al ozono, al envejecimiento y a los agentes atmosféricos. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

• Industria de la madera para aspiración de serrín, polvos abrasivos, y donde sea necesaria una alta flexibilidad incluso a bajas temperaturas.

*Translucent ester based TPU duct reinforced with copper colored TPU high adhesion steel spiral. Wall thickness from 0,4 mm to 0,75 mm. Maximum flexibility, high compressibility (about 5:1) and lightness make this duct an excellent choice for cost saving storage and transport and easy handling in operation. Resistant to abrasion, mineral oils, UV, ozone and ageing. Especially suitable for dynamic applications. The TPU-coated spiral allows more bending sessions than a hose with a not coated steel spiral. It can be made conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

• Suction of pellets, granulates, abrasive powders and chemicals. In woodworking and ceramic industry and everywhere very high flexibility is required, even at low temperatures.

Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel spiral



TPU a base de éster / Ester based TPU hose

## Ficha técnica / Technical data

| Código         | Ø int.    | Min esp.     | Peso   | Vacio | R. de curvatura    | Lg. Rollo  | Vol.           | Abrazaderas doble puente W2 |  |
|----------------|-----------|--------------|--------|-------|--------------------|------------|----------------|-----------------------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.  | Bending            | Coil lgth. | Vol.           | Double bridge W2            |                                                                                       |
|                | mm/inch   | mm           | g/m    | mm    | m H <sub>2</sub> O | m          | m <sup>3</sup> |                             |                                                                                       |
| VMFR0250000000 | 25*       | 0,40         | 140    | 2,0   | 30                 | 20         | 0,05           | -                           |                                                                                       |
| VMFR0320000000 | 32        | 0,40         | 175    | 2,0   | 30                 | 20         | 0,06           | -                           |                                                                                       |
| VMFR0380000000 | 38        | 0,40         | 180    | 2,0   | 30                 | 20         | 0,09           | -                           |                                                                                       |
| VMFR0400000000 | 40        | 0,40         | 190    | 2,0   | 32                 | 20         | 0,09           | -                           |                                                                                       |
| VMFR0450000000 | 45*       | 0,40         | 210    | 2,0   | 36                 | 20         | 0,10           | -                           |                                                                                       |
| VMFR0500000000 | 50*       | 0,40         | 230    | 2,0   | 40                 | 20         | 0,11           | -                           |                                                                                       |
| VMFR0510000000 | 51        | 0,40         | 235    | 2,0   | 40                 | 20         | 0,11           | -                           |                                                                                       |
| VMFR0550000000 | 55*       | 0,40         | 250    | 2,0   | 40                 | 20         | 0,12           | -                           |                                                                                       |
| VMFR0600000000 | 60        | 0,40         | 270    | 1,7   | 50                 | 20         | 0,13           | -                           |                                                                                       |
| VMFR0630000000 | 63        | 0,40         | 280    | 1,7   | 55                 | 20         | 0,19           | -                           |                                                                                       |
| VMFR0650000000 | 65*       | 0,40         | 290    | 1,7   | 56                 | 20         | 0,19           | -                           |                                                                                       |
| VMFR0700000000 | 70/2.3/4" | 0,43         | 380    | 1,7   | 60                 | 20         | 0,20           | -                           |                                                                                       |
| VMFR0750000000 | 75*       | 0,43         | 405    | 1,7   | 65                 | 20         | 0,22           | -                           |                                                                                       |
| VMFR0760000000 | 76        | 0,43         | 410    | 1,7   | 65                 | 20         | 0,22           | -                           |                                                                                       |
| VMFR0800000000 | 80        | 0,43         | 430    | 1,6   | 65                 | 20         | 0,23           | F2 W2 076.0 090.0           | 10 m                                                                                  |
| VMFR0900000000 | 90        | 0,43         | 480    | 1,6   | 75                 | 20         | 0,29           |                             |                                                                                       |
| VMFR1000000000 | 100*      | 0,53         | 540    | 1,3   | 85                 | 15         | 0,32           |                             |                                                                                       |
| VMFR1020000000 | 102/4"    | 0,53         | 550    | 1,3   | 85                 | 15         | 0,32           |                             | 10/15 m                                                                               |
| VMFR1100000000 | 110       | 0,53         | 590    | 1,2   | 90                 | 15         | 0,35           |                             |                                                                                       |
| VMFR1200000000 | 120       | 0,53         | 640    | 1,0   | 100                | 15         | 0,37           | F2 W2 100.0 127.0           | 10 m                                                                                  |
| VMFR1220000000 | 122*      | 0,53         | 650    | 1,0   | 100                | 15         | 0,38           |                             |                                                                                       |
| VMFR1270000000 | 127/5"    | 0,63         | 765    | 1,0   | 105                | 15         | 0,39           |                             | 10 m                                                                                  |
| VMFR1300000000 | 130*      | 0,63         | 780    | 0,8   | 105                | 15         | 0,40           |                             |                                                                                       |
| VMFR1400000000 | 140       | 0,63         | 840    | 0,8   | 115                | 15         | 0,65           |                             |                                                                                       |
| VMFR1500000000 | 150*      | 0,63         | 895    | 0,8   | 125                | 15         | 0,69           |                             |                                                                                       |
| VMFR1520000000 | 152/6"    | 0,63         | 910    | 0,8   | 125                | 15         | 0,70           | F2 W2 130.0 190.0           |                                                                                       |
| VMFR1600000000 | 160       | 0,63         | 955    | 0,7   | 130                | 15         | 0,73           |                             |                                                                                       |
| VMFR1800000000 | 180       | 0,63         | 1235   | 0,5   | 150                | 15         | 0,97           |                             |                                                                                       |
| VMFR2000000000 | 200*      | 0,63         | 1365   | 0,4   | 165                | 15         | 1,08           |                             |                                                                                       |
| VMFR2030000000 | 203/8"    | 0,63         | 1385   | 0,4   | 165                | 15         | 1,09           | F2 W2 200.0 230.0           | 10 m                                                                                  |
| VMFR2280000000 | 228*      | 0,63         | 1550   | 0,4   | 185                | 10         | 1,22           |                             |                                                                                       |
| VMFR2500000000 | 250*      | 0,65         | 1845   | 0,4   | 210                | 10         | 1,33           |                             |                                                                                       |
| VMFR2540000000 | 254/10"   | 0,65         | 1875   | 0,4   | 210                | 10         | 1,35           |                             |                                                                                       |
| VMFR2650000000 | 265*      | 0,65         | 1955   | 0,4   | 220                | 10         | 1,41           |                             |                                                                                       |
| VMFR2790000000 | 279*      | 0,65         | 2055   | 0,4   | 230                | 10         | 1,48           | F2 W2 250.0 330.0           |                                                                                       |
| VMFR3050000000 | 305/12"   | 0,65         | 2245   | 0,3   | 250                | 10         | 1,61           |                             |                                                                                       |
| VMFR3150000000 | 315*      | 0,65         | 2315   | 0,3   | 275                | 10         | 1,66           |                             |                                                                                       |
| VMFR3250000000 | 325*      | 0,65         | 2390   | 0,3   | 275                | 10         | 1,72           |                             |                                                                                       |
| VMFR3560000000 | 356*/14"  | 0,65         | 2610   | 0,3   | 300                | 10         | 0,335          | F2 W2 350.0 410.0           |                                                                                       |
| VMFR4060000000 | 406*      | 0,75         | 3210   | 0,3   | 350                | 10         | 0,433          |                             |                                                                                       |

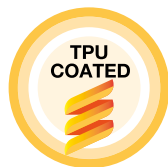
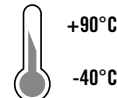
\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock



# VULCANO® R FR (Cod. VR FR)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2- Ø 76-406

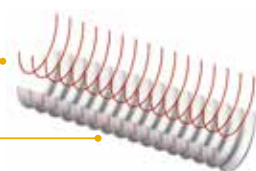
**Tubo transparente de TPU a base de éster, reforzado con espiral de acero recubierta de TPU de color cobre** para asegurar la máxima adhesión a la pared. Espesor de pared de 0.40 mm a 0.75 mm. Ligero, muy flexible y muy maneable. Puede producirse en la versión resistente a los microbios bajo pedido. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Industria de la madera para aspiración de serrín, polvos abrasivos, y donde sea necesaria una alta flexibilidad incluso a bajas temperaturas.

*Transparent ester based TPU duct reinforced with TPU coated copper coloured high adhesion steel spiral. Wall thickness from 0,4 mm to 0,75 mm. It is light and flexible. Resistant to abrasion, mineral oils, weather conditions, ozone and ageing. Expecially suitable for dynamic applications. The TPU-coated spiral allows more bending sessions than a hose with a not coated steel spiral. Conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral. It can be made in the microbes resistant version (contact our offices for more details).*

- Suction of pellets, granulates, abrasive powders and chemicals. In ceramic, suction plants, woodworking and plastic Industry.

Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel spiral



TPU a base de éster / Ester based TPU hose

## Ficha técnica / Technical data

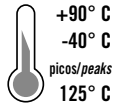
| Código         | Ø int.    | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                      | Vol.           | Abrazaderas doble puente W2 | JP |
|----------------|-----------|--------------|--------|--------------------|-----------------|--------------------------------|----------------|-----------------------------|----|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                     | Vol.           | Double bridge W2            |    |
|                | mm/inch   | mm           | g/m    | m H <sub>2</sub> O | mm              | m                              | m <sup>3</sup> |                             |    |
| VRFR0250000000 | 25*       | 0,40         | 140    | 2,0                | 30              | 20                             | 0,05           | -                           |    |
| VRFR0300000000 | 30*       | 0,40         | 160    | 2,0                | 30              | 20                             | 0,05           | -                           |    |
| VRFR0320000000 | 32*       | 0,40         | 170    | 2,0                | 30              | 20                             | 0,06           | -                           |    |
| VRFR0350000000 | 35*       | 0,40         | 190    | 2,0                | 30              | 20                             | 0,06           | -                           |    |
| VRFR0380000000 | 38        | 0,40         | 175    | 2,0                | 30              | 20                             | 0,09           | -                           |    |
| VRFR0400000000 | 40        | 0,40         | 185    | 2,0                | 32              | 20                             | 0,09           | -                           |    |
| VRFR0450000000 | 45*       | 0,40         | 205    | 2,0                | 36              | 20                             | 0,10           | -                           |    |
| VRFR0480000000 | 48*       | 0,40         | 215    | 2,0                | 36              | 20                             | 0,10           | -                           |    |
| VRFR0500000000 | 50*       | 0,40         | 225    | 2,0                | 40              | 20                             | 0,11           | -                           |    |
| VRFR0510000000 | 51        | 0,40         | 225    | 2,0                | 40              | 20                             | 0,11           | -                           |    |
| VRFR0600000000 | 60        | 0,40         | 260    | 1,7                | 50              | 20                             | 0,13           | -                           |    |
| VRFR0630000000 | 63        | 0,40         | 275    | 1,7                | 55              | 20                             | 0,19           | -                           |    |
| VRFR0650000000 | 65*       | 0,40         | 280    | 1,7                | 56              | 20                             | 0,19           | -                           |    |
| VRFR0700000000 | 70/2.3/4" | 0,43         | 375    | 1,7                | 60              | 20                             | 0,20           | -                           |    |
| VRFR0750000000 | 75*       | 0,43         | 400    | 1,7                | 65              | 20                             | 0,22           | -                           |    |
| VRFR0760000000 | 76        | 0,43         | 405    | 1,7                | 65              | 20                             | 0,22           | F2 W2 076.0                 |    |
| VRFR0800000000 | 80        | 0,43         | 420    | 1,6                | 65              | 20                             | 0,23           | 090.0                       |    |
| VRFR0900000000 | 90        | 0,43         | 470    | 1,6                | 75              | 20                             | 0,29           |                             |    |
| VRFR1000000000 | 100*      | 0,53         | 520    | 1,3                | 85              | 15                             | 0,32           |                             |    |
| VRFR1020000000 | 102/4"    | 0,53         | 530    | 1,3                | 85              | 15                             | 0,32           |                             |    |
| VRFR1100000000 | 110       | 0,53         | 570    | 1,2                | 90              | 15                             | 0,35           | F2 W2 100.0                 |    |
| VRFR1150000000 | 115*      | 0,53         | 595    | 1,0                | 100             | 15                             | 0,36           | 127.0                       |    |
| VRFR1200000000 | 120       | 0,53         | 620    | 1,0                | 100             | 15                             | 0,37           |                             |    |
| VRFR1220000000 | 122*      | 0,53         | 630    | 1,0                | 100             | 15                             | 0,38           |                             |    |
| VRFR1270000000 | 127/5"    | 0,63         | 755    | 1,0                | 105             | 15                             | 0,39           |                             |    |
| VRFR1300000000 | 130       | 0,63         | 770    | 0,8                | 105             | 15                             | 0,40           |                             |    |
| VRFR1400000000 | 140       | 0,63         | 830    | 0,8                | 115             | 15                             | 0,65           | F2 W2 130.0                 |    |
| VRFR1500000000 | 150*      | 0,63         | 885    | 0,8                | 125             | 15                             | 0,69           | 190.0                       |    |
| VRFR1520000000 | 152       | 0,63         | 895    | 0,8                | 125             | 15                             | 0,70           |                             |    |
| VRFR1600000000 | 160       | 0,63         | 940    | 0,7                | 130             | 15                             | 0,73           |                             |    |
| VRFR1800000000 | 180       | 0,63         | 1250   | 0,5                | 150             | 15                             | 0,97           |                             |    |
| VRFR2000000000 | 200*      | 0,63         | 1385   | 0,4                | 165             | 15                             | 1,08           |                             |    |
| VRFR2030000000 | 203/8"    | 0,63         | 1405   | 0,4                | 165             | 15                             | 1,09           | F2 W2 200.0                 |    |
| VRFR2200000000 | 220*      | 0,63         | 1515   | 0,4                | 185             | 10                             | 1,18           | 230.0                       |    |
| VRFR2280000000 | 228*      | 0,63         | 1570   | 0,4                | 185             | 10                             | 1,22           |                             |    |
| VRFR2500000000 | 250*      | 0,65         | 1870   | 0,4                | 210             | 10                             | 1,33           |                             |    |
| VRFR2540000000 | 254/10"   | 0,65         | 1900   | 0,4                | 210             | 10                             | 1,35           |                             |    |
| VRFR2650000000 | 265*      | 0,65         | 1980   | 0,4                | 220             | 10                             | 1,41           | F2 W2 250.0                 |    |
| VRFR2790000000 | 279*      | 0,65         | 2080   | 0,4                | 230             | 10                             | 1,48           | 330.0                       |    |
| VRFR3050000000 | 305/12"   | 0,65         | 2270   | 0,3                | 250             | 10                             | 1,61           |                             |    |
| VRFR3150000000 | 315*      | 0,65         | 2345   | 0,3                | 275             | 10                             | 1,66           |                             |    |
| VRFR3560000000 | 356*/14"  | 0,65         | 2645   | 0,3                | 300             | 10 m pz.dritti / 10 m straight | 1,340          | F2 W2 350.0                 |    |
| VRFR4060000000 | 406*      | 0,75         | 3150   | 0,3                | 350             | 10 m pz.dritti / 10 m straight | 1,747          | 410.0                       |    |
| VRFR4500000000 | 450*      | 0,75         | 4095   | 0,2                | 400             | 10 m pz.dritti / 10 m straight | 2,153          | -                           |    |
| VRFR5000000000 | 500*      | 0,75         | 4530   | 0,1                | 450             | 6 m pz.dritti / 6 m straight   | 1,585          | -                           |    |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

**JP** disponible en stock / available on stock

# VULCANO® 09 EST (Cod. VB)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2- Ø 76-400

**Tubo translucido de TPU a base de éster con espiral de refuerzo de acero recubierta de TPU de alta adhesión de color cobre.** Espesor de pared constante de 0,9 mm en toda la gama de diámetros. Superficie interna lisa. Flexible y con óptima resistencia a la abrasión, a los aceites minerales, al ozono, al envejecimiento y a los agentes atmosféricos.

Puede producirse según pedido la versión resistente a los microbios o con pared en material antiestático permanente ( $R < 10^9$  Ohm/metro). Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

• Industria de la cerámica y de la madera, plantas de aspiración de serrín, humos, y polvos abrasivos.

*Translucent ester based TPU hose reinforced with a TPU coated copper colored steel spiral that allows a high adhesion. Constant wall thickness of 0,9 mm for the whole diameter range. Smooth inside. Strong but very light and flexible even at low temperatures, it is suitable for heavy duty applications where a very good abrasion resistance is required. Resistant to mineral oils, chemicals, atmospheric agents and ozone. Conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral. It can be produced in the microbes resistant version or with permanent antistatic material ( $R < 10^9$  Ohm/m).*

• Suction of granulates, abrasive powders and sawdust. For plastic, woodworking and ceramic industries, dedusting and suction plants.

Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel spiral



TPU a base de éster / Ester based TPU hose

## Ficha técnica / Technical data

| Código         | Ø int.    | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                      | Vol.           | Abrazaderas doble puente W2 |  |
|----------------|-----------|--------------|--------|--------------------|-----------------|--------------------------------|----------------|-----------------------------|--------------------------------------------------------------------------------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                     | Vol.           | Double bridge W2            |                                                                                      |
|                | mm/inch   | mm           | g/m    | m H <sub>2</sub> O | mm              | m                              | m <sup>3</sup> |                             |                                                                                      |
|                |           |              |        |                    |                 |                                |                |                             |                                                                                      |
| VB010200000000 | 20*       | 0,90         | 170    | 5,0                | 25              | 20                             | 0,04           | -                           |                                                                                      |
| VB010250000000 | 25*       | 0,90         | 215    | 5,0                | 30              | 20                             | 0,04           | -                           |                                                                                      |
| VB010300000000 | 30*       | 0,90         | 260    | 5,0                | 35              | 20                             | 0,05           | -                           |                                                                                      |
| VB010320000000 | 32*       | 0,90         | 280    | 5,0                | 35              | 20                             | 0,05           | -                           |                                                                                      |
| VB010350000000 | 35*       | 0,90         | 300    | 5,0                | 40              | 20                             | 0,06           | -                           |                                                                                      |
| VB010380000000 | 38        | 0,90         | 290    | 5,0                | 40              | 20                             | 0,06           | -                           |                                                                                      |
| VB010400000000 | 40        | 0,90         | 300    | 5,0                | 50              | 20                             | 0,07           | -                           |                                                                                      |
| VB010450000000 | 45*       | 0,90         | 390    | 5,0                | 50              | 20                             | 0,09           | -                           |                                                                                      |
| VB010500000000 | 50*       | 0,90         | 430    | 4,0                | 60              | 20                             | 0,10           | -                           |                                                                                      |
| VB010510000000 | 51        | 0,90         | 435    | 4,0                | 60              | 20                             | 0,10           | -                           |                                                                                      |
| VB010550000000 | 55*       | 0,90         | 470    | 3,5                | 65              | 20                             | 0,12           | -                           |                                                                                      |
| VB010600000000 | 60        | 0,90         | 510    | 3,0                | 70              | 20                             | 0,13           | -                           |                                                                                      |
| VB010630000000 | 63        | 0,90         | 530    | 3,0                | 70              | 20                             | 0,13           | -                           |                                                                                      |
| VB010650000000 | 65*       | 0,90         | 545    | 3,0                | 70              | 20                             | 0,18           | -                           |                                                                                      |
| VB010700000000 | 70/2.3/4" | 0,90         | 675    | 3,0                | 80              | 20                             | 0,20           | -                           |                                                                                      |
| VB010750000000 | 75*       | 0,90         | 720    | 3,0                | 90              | 20                             | 0,22           | -                           |                                                                                      |
| VB010760000000 | 76        | 0,90         | 730    | 3,0                | 90              | 20                             | 0,24           | -                           |                                                                                      |
| VB010800000000 | 80        | 0,90         | 765    | 3,0                | 90              | 20                             | 0,26           | F2 W2 076.0 090.0           |                                                                                      |
| VB010900000000 | 90        | 0,90         | 855    | 2,5                | 100             | 20                             | 0,29           | -                           |                                                                                      |
| VB011000000000 | 100*      | 0,90         | 945    | 2,0                | 120             | 15                             | 0,31           | -                           |                                                                                      |
| VB011020000000 | 102/4"    | 0,90         | 965    | 2,0                | 120             | 15                             | 0,32           | -                           |                                                                                      |
| VB011100000000 | 110*      | 0,90         | 1035   | 2,0                | 130             | 15                             | 0,34           | F2 W2 100.0 127.0           |                                                                                      |
| VB011150000000 | 115*      | 0,90         | 1080   | 1,5                | 135             | 15                             | 0,36           | -                           |                                                                                      |
| VB011200000000 | 120       | 0,90         | 1125   | 1,5                | 140             | 15                             | 0,37           | -                           |                                                                                      |
| VB011270000000 | 127/5"    | 0,90         | 1370   | 1,5                | 150             | 15                             | 0,39           | -                           |                                                                                      |
| VB011300000000 | 130*      | 0,90         | 1405   | 1,5                | 150             | 15                             | 0,40           | -                           |                                                                                      |
| VB011400000000 | 140       | 0,90         | 1505   | 1,0                | 160             | 15                             | 0,64           | -                           |                                                                                      |
| VB011500000000 | 150*      | 0,90         | 1610   | 1,0                | 170             | 15                             | 0,69           | -                           |                                                                                      |
| VB011520000000 | 152/6"    | 0,90         | 1630   | 1,0                | 170             | 15                             | 0,70           | F2 W2 130.0 190.0           |                                                                                      |
| VB011600000000 | 160       | 0,90         | 1715   | 1,0                | 180             | 15                             | 0,73           | -                           |                                                                                      |
| VB011700000000 | 170*      | 0,90         | 1625   | 0,8                | 200             | 15                             | 0,92           | -                           |                                                                                      |
| VB011800000000 | 180       | 0,90         | 1720   | 0,8                | 210             | 15                             | 0,97           | -                           |                                                                                      |
| VB012000000000 | 200       | 0,90         | 1905   | 0,8                | 230             | 15                             | 1,08           | F2 W2 200.0 230.0           |                                                                                      |
| VB012030000000 | 203/8"    | 0,90         | 1930   | 0,8                | 230             | 15                             | 1,09           | -                           |                                                                                      |
| VB012200000000 | 220*      | 0,90         | 2090   | 0,6                | 260             | 10                             | 1,18           | -                           |                                                                                      |
| VB012280000000 | 228*      | 0,90         | 2160   | 0,6                | 260             | 10                             | 1,22           | -                           |                                                                                      |
| VB012500000000 | 250*      | 0,90         | 2365   | 0,6                | 290             | 10                             | 1,33           | F2 W2 250.0 330.0           |                                                                                      |
| VB012540000000 | 254/10"   | 0,90         | 2400   | 0,6                | 290             | 10                             | 1,35           | -                           |                                                                                      |
| VB012650000000 | 265*      | 0,90         | 2725   | 0,5                | 300             | 10                             | 1,41           | -                           |                                                                                      |
| VB012790000000 | 279*      | 0,90         | 2870   | 0,5                | 320             | 10                             | 1,48           | -                           |                                                                                      |
| VB013000000000 | 300*      | 0,90         | 3080   | 0,5                | 350             | 10                             | 1,59           | -                           |                                                                                      |
| VB013050000000 | 305/12"   | 0,90         | 3130   | 0,5                | 350             | 10                             | 1,61           | -                           |                                                                                      |
| VB013150000000 | 315*      | 0,90         | 3230   | 0,4                | 350             | 10                             | 1,66           | -                           |                                                                                      |
| VB013500000000 | 350*      | 0,90         | 4075   | 0,4                | 410             | 10 m pz.dritti / 10 m straight | 1,296          | F2 W2 350.0 410.0           |                                                                                      |
| VB013560000000 | 356*/14"  | 0,90         | 4145   | 0,4                | 410             | 10 m pz.dritti / 10 m straight | 1,340          | -                           |                                                                                      |
| VB014000000000 | 400*      | 0,90         | 4645   | 0,3                | -               | 10 m pz.dritti / 10 m straight | 1,681          | -                           |                                                                                      |
| VB014060000000 | 406*      | 0,90         | 4715   | 0,3                | -               | 10 m pz.dritti / 10 m straight | 1,731          | -                           |                                                                                      |
| VB014500000000 | 450*      | 0,90         | 6535   | 0,3                | -               | 6 m pz.dritti / 6 m straight   | 1,275          | -                           |                                                                                      |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

Disponibile también en la versión electroconductiva. pag 21 / Available also in the electrical conductive version, pag. 21

 disponible en stock / available on stock

# VULCANO® 15 EST (Cod. VC)



+90° C  
-40° C  
picos/peaks  
125° C



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



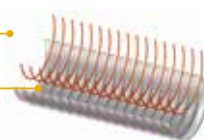
Cod. F2 W2- Ø 76-406

Tubo translucido con pared de TPU a base de éster, espiral en acero recubierta de TPU de color cobre, para asegurar la máxima adhesión a la pared del tubo. El espesor de la pared del tubo es constante de 1,5 mm para todos los diámetros. Superficie interna lisa para favorecer el paso de gránulos y otros sólidos y para optimizar el flujo; disponible según pedido en la versión antiestática permanente ( $R < 10^9$  Ohm/metro). Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. • Paso a alta velocidad de gránulos, pellets, polvos, y serrín. Para aspiraciones industriales, compresores, sistemas de distribución de gránulos en la industria plástica y máquinas de impresión.

*Translucent ester based TPU hose, reinforced with a high adhesion TPU-coated copper coloured steel spiral. Smooth inside to ensure the optimization of the media transported. Higher abrasion resistance than conventional hoses in rubber or PVC, with a superior lifetime in use. Good resistance to mineral oils and chemicals, excellent resistance to ozone and weather agents. It can be made conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral. On request it can be produced with permanent antistatic material ( $R < 10^9$  Ohm/metre).*

• Passage of highly abrasive granulates, pellets and chips. For granulate conveying systems in the plastic industry, industrial vacuum cleaners, printing machines. To transport gravel, stones and aggregate.

Espiral de acero cobreado recubierta de TPU / TPU coated copper colored steel spiral



TPU a base de éster / Ester based TPU hose

Ficha técnica / Technical data

| Código         | Ø int.    | Min esp.     | Peso   | Vacio              | R. de curva-<br>tura | Lg. Rollo                      | Vol.           | Abrazaderas<br>doble puente W2 |
|----------------|-----------|--------------|--------|--------------------|----------------------|--------------------------------|----------------|--------------------------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.               | Bending              | Coil lgth.                     | Vol.           | Double bridge W2               |
|                | mm/inch   | mm           | g/m    | m H <sub>2</sub> O | mm                   | m                              | m <sup>3</sup> |                                |
| VC010200000000 | 20*       | 1,50         | 245    | 9,5                | 25                   | 20                             | 0,03           | -                              |
| VC010250000000 | 25*       | 1,50         | 305    | 9,5                | 30                   | 20                             | 0,05           | -                              |
| VC010300000000 | 30*       | 1,50         | 440    | 9,5                | 35                   | 20                             | 0,06           | -                              |
| VC010320000000 | 32*       | 1,50         | 465    | 9,5                | 35                   | 20                             | 0,06           | -                              |
| VC010350000000 | 35*       | 1,50         | 500    | 9,5                | 40                   | 20                             | 0,06           | -                              |
| VC010380000000 | 38        | 1,50         | 535    | 9,5                | 40                   | 20                             | 0,09           | -                              |
| VC010400000000 | 40        | 1,50         | 560    | 9,5                | 50                   | 20                             | 0,09           | -                              |
| VC010450000000 | 45*       | 1,50         | 620    | 9,0                | 50                   | 20                             | 0,10           | -                              |
| VC010500000000 | 50        | 1,50         | 685    | 9,0                | 60                   | 20                             | 0,11           | -                              |
| VC010510000000 | 51        | 1,50         | 695    | 9,0                | 60                   | 20                             | 0,12           | -                              |
| VC010550000000 | 55*       | 1,50         | 745    | 9,0                | 65                   | 20                             | 0,12           | -                              |
| VC010600000000 | 60        | 1,50         | 810    | 8,5                | 70                   | 20                             | 0,13           | -                              |
| VC010630000000 | 63        | 1,50         | 845    | 8,0                | 70                   | 20                             | 0,19           | -                              |
| VC010650000000 | 65*       | 1,50         | 870    | 7,5                | 70                   | 20                             | 0,19           | -                              |
| VC010700000000 | 70/2.3/4" | 1,50         | 1005   | 7,5                | 80                   | 20                             | 0,20           | -                              |
| VC010750000000 | 75*       | 1,50         | 1075   | 7,0                | 80                   | 20                             | 0,22           | -                              |
| VC010760000000 | 76        | 1,50         | 1090   | 7,0                | 90                   | 20                             | 0,25           | -                              |
| VC010800000000 | 80        | 1,50         | 1140   | 6,0                | 90                   | 20                             | 0,26           | F2 W2 076.0 090.0              |
| VC010900000000 | 90        | 1,50         | 1275   | 5,0                | 100                  | 20                             | 0,29           | -                              |
| VC011000000000 | 100*      | 1,50         | 1410   | 4,0                | 120                  | 15                             | 0,32           | -                              |
| VC011020000000 | 102/4"    | 1,50         | 1435   | 3,5                | 120                  | 15                             | 0,32           | -                              |
| VC011100000000 | 110       | 1,50         | 1545   | 3,2                | 130                  | 15                             | 0,35           | -                              |
| VC011150000000 | 115*      | 1,50         | 1610   | 3,0                | 135                  | 15                             | 0,36           | F2 W2 100.0 127.0              |
| VC011200000000 | 120       | 1,50         | 1675   | 3,0                | 140                  | 15                             | 0,37           | -                              |
| VC011220000000 | 122*      | 1,50         | 1705   | 3,0                | 140                  | 15                             | 0,38           | -                              |
| VC011270000000 | 127/5"    | 1,50         | 2075   | 2,9                | 150                  | 15                             | 0,40           | -                              |
| VC011300000000 | 130*      | 1,50         | 2120   | 2,6                | 150                  | 15                             | 0,61           | -                              |
| VC011400000000 | 140*      | 1,50         | 2275   | 2,4                | 160                  | 15                             | 0,65           | -                              |
| VC011500000000 | 150       | 1,50         | 2435   | 2,0                | 170                  | 15                             | 0,69           | -                              |
| VC011520000000 | 152/6"    | 1,50         | 2465   | 2,0                | 170                  | 15                             | 0,70           | F2 W2 130.0 190.0              |
| VC011600000000 | 160       | 1,50         | 2590   | 1,8                | 180                  | 15                             | 0,74           | -                              |
| VC011750000000 | 175*      | 1,50         | 2705   | 1,5                | 200                  | 15                             | 0,95           | -                              |
| VC011800000000 | 180       | 1,50         | 2780   | 1,5                | 210                  | 15                             | 0,98           | -                              |
| VC012000000000 | 200       | 1,50         | 3080   | 1,2                | 230                  | 15                             | 1,08           | -                              |
| VC012030000000 | 203/8"    | 1,50         | 3125   | 1,2                | 230                  | 15                             | 1,10           | -                              |
| VC012060000000 | 206*      | 1,50         | 3170   | 1,2                | 235                  | 15                             | 1,11           | F2 W2 200.0 230.0              |
| VC012280000000 | 228*      | 1,50         | 3500   | 1,0                | 260                  | 10                             | 1,23           | -                              |
| VC012500000000 | 250*      | 1,50         | 3830   | 0,8                | 290                  | 10                             | 1,34           | -                              |
| VC012540000000 | 254*/10"  | 1,50         | 3890   | 0,8                | 290                  | 10                             | 1,36           | -                              |
| VC012650000000 | 265*      | 1,50         | 4055   | 0,7                | 300                  | 10                             | 1,42           | F2 W2 250.0 330.0              |
| VC012790000000 | 279*      | 1,50         | 4265   | 0,7                | 320                  | 10                             | 1,49           | -                              |
| VC013050000000 | 305*/12"  | 1,50         | 5680   | 0,7                | 350                  | 10 m pz.dritti / 10 m straight | 1,007          | -                              |
| VC013200000000 | 320*      | 1,50         | 5955   | 0,7                | n.d.                 | 10 m pz.dritti / 10 m straight | 1,105          | -                              |
| VC013500000000 | 350*      | 1,50         | 6500   | 0,7                | n.d.                 | 10 m pz.dritti / 10 m straight | 1,313          | -                              |
| VC014000000000 | 400*      | 1,50         | 7415   | 0,7                | n.d.                 | 6 m pz.dritti / 6 m straight   | 1,020          | F2 W2 350.0 410.0              |
| VC014060000000 | 406*      | 1,50         | 7525   | 0,7                | n.d.                 | 6 m pz.dritti / 6 m straight   | 1,050          | -                              |
| VC015000000000 | 500*      | 1,50         | 9240   | 0,2                | 600                  | 5 m pz.dritti / 5 m straight   | 1,313          | -                              |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

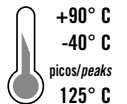
Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

Disponibile también en la versión electroconductiva. pag 22 / Available also in the electrical conductive version, pag. 22



# VULCANO® STONE

(Cod. TH 01)



**Tubo translucido con pared de TPU a base de éster antimicrobico y con espiral de refuerzo de acero recubierta de TPU** de alta adhesión de color cobre, para garantizar la máxima seguridad de uso incluso en aplicaciones extremas. Espesor de pared constante de 2,0 mm para todos los diámetros. Superficie interna lisa, ligero, maneable y flexible. Elevada resistencia a la abrasión, presenta una resistencia a la hidrólisis superior a la de un tubo normal de TPU a base éster. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Indicado para camiones aspiradores en el campo de la construcción, en particular en las actividades relativas al aislamiento de tejados. Puede usarse en las cementeras, en las cavas y en las plantas de acero para aspiración de substancias de altísimo poder abrasivo.

*Translucent antimicrobial ester based TPU hose, reinforced with TPU coated copper coloured steel spiral, to ensure the best adhesion with the hose wall. Smooth inside. It keeps very high flexibility though its thickness and easy handling, thanks to its limited weight. Resistant to extreme abrasion, mineral oils, ageing, ozone and atmospheric agents. It can be made conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral. Specially developed to withstand the hardest applications like vacuum cleaner trucks and roof rocking.*

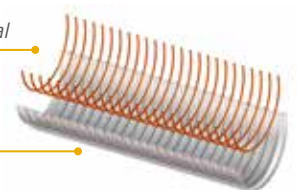
- Suction of extremely abrasive media. Particularly indicated for vacuum cleaner trucks and in the roof rocking sector. It can be also used in steelworks, cement factories and in quarries.*

Espiral de acero cobreado recubierta de TPU

Copper coloured TPU coated copper colored steel spiral

TPU a base de éster /

Ester-based antimicrobial TPU hose



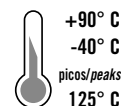
## Ficha técnica / Technical data

| Código         | Ø int.     | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                      | Vol.           |
|----------------|------------|--------------|--------|--------------------|-----------------|--------------------------------|----------------|
| Code           | Ø Int.     | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                     | Vol.           |
|                | mm/inch    | mm           | g/m    | m H <sub>2</sub> O | mm              | m                              | m <sup>3</sup> |
| TH010380000000 | 38*        | 2,00         | 800    | 9,7                | 150             | 15                             | 0,06           |
| TH010400000000 | 40*        | 2,00         | 840    | 9,7                | 160             | 15                             | 0,07           |
| TH010450000000 | 45*        | 2,00         | 930    | 9,7                | 180             | 15                             | 0,11           |
| TH010510000000 | 51*        | 2,00         | 1140   | 9,7                | 204             | 15                             | 0,12           |
| TH010600000000 | 60*        | 2,00         | 1320   | 9,7                | 240             | 15                             | 0,18           |
| TH010630000000 | 63*        | 2,00         | 1380   | 9,7                | 250             | 15                             | 0,19           |
| TH010650000000 | 65*        | 2,00         | 1420   | 9,7                | 250             | 15                             | 0,20           |
| TH010700000000 | 70*/2.3/4" | 2,00         | 1520   | 9,5                | 280             | 15                             | 0,21           |
| TH010760000000 | 76*        | 2,00         | 1640   | 9,5                | 305             | 15                             | 0,25           |
| TH010800000000 | 80*        | 2,00         | 1720   | 9,5                | 320             | 15                             | 0,26           |
| TH010900000000 | 90*        | 2,00         | 1925   | 9,5                | 360             | 15                             | 0,29           |
| TH011000000000 | 100*       | 2,00         | 2275   | 9,5                | 400             | 10                             | 0,32           |
| TH011020000000 | 102*/4"    | 2,00         | 2320   | 9,5                | 410             | 10                             | 0,33           |
| TH011100000000 | 110*       | 2,00         | 2490   | 9,4                | 440             | 10                             | 0,35           |
| TH011150000000 | 115*       | 2,00         | 2600   | 9,4                | 460             | 10                             | 0,37           |
| TH011200000000 | 120*       | 2,00         | 2705   | 9,2                | 480             | 10                             | 0,68           |
| TH011270000000 | 127*/5"    | 2,00         | 2965   | 9,0                | 510             | 10                             | 0,72           |
| TH011300000000 | 130*       | 2,00         | 3030   | 9,0                | 520             | 10                             | 0,73           |
| TH011400000000 | 140*       | 2,00         | 3255   | 8,7                | 560             | 10 m pz.dritti / 10 m straight | 0,233          |
| TH011500000000 | 150*       | 2,00         | 3475   | 8,5                | 600             | 10 m pz.dritti / 10 m straight | 0,265          |
| TH011520000000 | 152*/6"    | 2,00         | 3520   | 8,2                | 610             | 10 m pz.dritti / 10 m straight | 0,272          |
| TH011600000000 | 160*       | 2,00         | 4245   | 8,0                | 640             | 10 m pz.dritti / 10 m straight | 0,301          |
| TH011800000000 | 180*       | 2,00         | 4750   | 7,0                | 810             | 10 m pz.dritti / 10 m straight | 0,374          |
| TH012000000000 | 200*       | 2,00         | 5260   | 6,0                | 1000            | 10 m pz.dritti / 10 m straight | 0,455          |
| TH012030000000 | 203*/8"    | 2,00         | 5335   | 6,0                | 1015            | 10 m pz.dritti / 10 m straight | 0,468          |
| TH012280000000 | 228*       | 2,00         | 5975   | 5,0                | n.d.            | 6 m pz.dritti / 6 m straight   | 0,350          |
| TH012400000000 | 240*       | 2,00         | 6280   | 4,0                | n.d.            | 6 m pz.dritti / 6 m straight   | 0,385          |
| TH012450000000 | 245*       | 2,00         | 6405   | 4,0                | n.d.            | 6 m pz.dritti / 6 m straight   | 0,401          |
| TH012500000000 | 250*       | 2,00         | 6535   | 4,0                | n.d.            | 6 m pz.dritti / 6 m straight   | 0,416          |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# VULCANO® STONE PLUS (Cod. TH 07)



**Tubo translucido con pared de TPU a base de éster antimicrobico y con espiral de refuerzo de acero recubierta de TPU de alta adhesión de color cobre**, para garantizar la máxima seguridad de uso, incluso en aplicaciones extremas. Superficie interna lisa, espesor de pared constante de 2,5 mm. Ligero, maneable y flexible, tiene una alta resistencia a la abrasión. El tubo presenta una resistencia a la hidrólisis superior a la de un tubo normal de TPU a base éster. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Industria siderúrgica: aspiración de sustancias y materiales con alto poder abrasivo, como las arenas de cuarzo, materiales de desecho y es particularmente indicado para camiones dotados de aspiradores con succión. Combinándolo a URANO HD SUPER, forman la mejor respuesta a las exigencias de transporte y aspiración de materiales altamente abrasivos en el sector de la reestructuración / aislamiento de tejados.

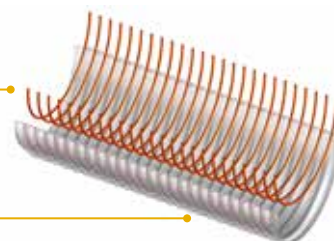
**Translucent antimicrobial ester based TPU hose, reinforced with TPU coated copper coloured steel spiral**, to ensure the best adhesion with the hose wall. Smooth inside, it has a constant wall thickness of 2,5 mm, which enhances a better resistance to abrasion and a longer life. It keeps very high flexibility though its thickness and easy handling, thanks to its limited weight. Resistant to extreme abrasion, mineral oils, ageing, ozone and atmospheric agents. It can be made conductive ( $R < 10^2$  Ohm/metre) by grounding the spiral.

- Suction of extremely abrasive media, like quartz sand, waste material in steelworks and particularly indicated for vacuum cleaner trucks. As well as URANO HD SUPER, it represents the best solution in terms of abrasion resistance in the roof rocking sector. Vulcano Stone Plus can be also installed in cement factories and quarries.



Espiral de acero cobreado recubierta de TPU  
Copper coloured TPU coated steel spiral

TPU a base de éster  
Ester-based antimicrobial TPU hose



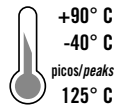
## Ficha técnica / Technical data

| Código        | Ø int.  | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                      | Vol.           |
|---------------|---------|--------------|--------|--------------------|-----------------|--------------------------------|----------------|
| Code          | Ø Int.  | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                     | Vol.           |
|               | mm/inch | mm           | g/m    | m H <sub>2</sub> O | mm              | m                              | m <sup>3</sup> |
| TH07040000000 | 40*     | 2,50         | 945    | 9,7                | 150             | 15                             | 0,10           |
| TH07051000000 | 51*     | 2,50         | 1350   | 9,7                | 204             | 15                             | 0,12           |
| TH07060000000 | 60*     | 2,50         | 1560   | 9,7                | 250             | 15                             | 0,19           |
| TH07080000000 | 80*     | 2,50         | 2025   | 9,7                | 300             | 10                             | 0,38           |
| TH07090000000 | 90*     | 2,50         | 2255   | 9,7                | 350             | 10                             | 0,42           |
| TH07100000000 | 100*    | 2,50         | 2660   | 9,5                | 400             | 10                             | 0,46           |
| TH07102000000 | 102*/4" | 2,50         | 2710   | 9,5                | 410             | 10                             | 0,47           |
| TH07127000000 | 127*/5" | 2,50         | 3320   | 9,0                | 580             | 10 m pz.dritti / 10 m straight | 0,201          |
| TH07152000000 | 152*/6" | 2,50         | 4235   | 8,0                | 680             | 6 m pz.dritti / 6 m straight   | 0,167          |
| TH07200000000 | 200*    | 2,50         | 5510   | 4,0                | 1000            | 6 m pz.dritti / 6 m straight   | 0,277          |
| TH07203000000 | 203*/8" | 2,50         | 5590   | 4,0                | 1015            | 6 m pz.dritti / 6 m straight   | 0,285          |
| TH07250000000 | 250*    | 2,50         | 7330   | 4,0                | 1250            | 6 m pz.dritti / 6 m straight   | 0,423          |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# VULCANO® 09 EL (Cod. EB)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2- Ø 76-203

**Tubo de TPU con base de éster, de color negro, reforzado con espiral en acero recubierta de TPU de color cobre, para asegurar la máxima adhesión con las paredes. Superficie interna lisa para optimizar el flujo, espesor de pared de 0,9 mm constante para todos los diámetros. Material con propiedades electroconductoras permanentes; resistencia eléctrica  $<10^4$  Ohm/metro. El tubo satisface los requisitos de las principales normativas en campo electroestático ATEX, ISO 8031. Antiestática ( $R<10^2$  Ohm/m) conectando la espiral a tierra. • Aplicaciones en ambientes con normativa ATEX. Para plantas de aspiración, para la industria de la cerámica y de la madera, aspiración de serrín, humos y polvos abrasivos.**

*Black Ester based TPU hose, reinforced with TPU coated high adhesion steel wire. Raw material with permanent electrical conductive features ( $R<10^4$  Ohm/metre), according to ISO 8031. Smooth inside to ensure optimization of flow properties. Constant wall thickness of 0,9 mm for the whole diameter range. Strong but very flexible, it is suitable to heavy duty applications where a very good abrasion resistance is required. The hose is suitable for all those areas where electrical conductivity is demanded. The hose meets the requirements of the widely known regulations in electrostatic field: ATEX, ISO 8031.*

• Suction of granulates, abrasive powders and sawdust. For plastic woodworking and ceramic industries, dedusting and suction plants.

Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel wire



TPU a base de éster / Ester based TPU hose

## Ficha técnica / Technical data

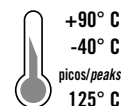
| Código         | Ø int.     | Min esp.     | Peso   | Vacio | R. de curva-<br>tura | Lg. Rollo  | Vol.           | Abrazaderas doble<br>puente W2 |
|----------------|------------|--------------|--------|-------|----------------------|------------|----------------|--------------------------------|
| Code           | Ø Int.     | Min wall th. | Weight | Vac.  | Bending              | Coil lgth. | Vol.           | Double bridge W2               |
|                | mm/inch    | mm           | g/m    | mm    | m H <sub>2</sub> O   | m          | m <sup>3</sup> |                                |
| EB010380000000 | 38*        | 0,90         | 295    | 0,3   | 40                   | 20         | 0,06           | -                              |
| EB010400000000 | 40*        | 0,90         | 310    | 0,3   | 50                   | 20         | 0,07           | -                              |
| EB010450000000 | 45*        | 0,90         | 385    | 0,3   | 50                   | 20         | 0,09           | -                              |
| EB010500000000 | 50*        | 0,90         | 425    | 0,3   | 60                   | 20         | 0,10           | -                              |
| EB010510000000 | 51*        | 0,90         | 435    | 0,3   | 60                   | 20         | 0,10           | -                              |
| EB010600000000 | 60*        | 0,90         | 505    | 0,3   | 70                   | 20         | 0,13           | -                              |
| EB010630000000 | 63*        | 0,90         | 530    | 0,3   | 70                   | 20         | 0,18           | -                              |
| EB010650000000 | 65*        | 0,90         | 545    | 0,3   | 70                   | 20         | 0,18           | -                              |
| EB010700000000 | 70*/2.3/4" | 0,90         | 655    | 0,3   | 80                   | 20         | 0,20           | -                              |
| EB010750000000 | 75*        | 0,90         | 695    | 0,3   | 90                   | 20         | 0,22           | -                              |
| EB010760000000 | 76*        | 0,90         | 705    | 0,3   | 90                   | 20         | 0,22           | -                              |
| EB010800000000 | 80*        | 0,90         | 740    | 0,3   | 90                   | 20         | 0,23           | F2 W2 076.0 090.0              |
| EB010900000000 | 90*        | 0,90         | 830    | 0,3   | 100                  | 20         | 0,29           |                                |
| EB011000000000 | 100*       | 0,90         | 915    | 0,3   | 120                  | 15         | 0,31           |                                |
| EB011020000000 | 102*/4"    | 0,90         | 930    | 0,3   | 120                  | 15         | 0,32           |                                |
| EB011100000000 | 110*       | 0,90         | 1000   | 0,3   | 130                  | 15         | 0,34           | F2 W2 100.0 127.0              |
| EB011150000000 | 115*       | 0,90         | 1045   | 0,3   | 135                  | 15         | 0,36           |                                |
| EB011200000000 | 120*       | 0,90         | 1090   | 0,3   | 140                  | 15         | 0,37           |                                |
| EB011270000000 | 127*/5"    | 0,90         | 1335   | 0,3   | 150                  | 15         | 0,39           |                                |
| EB011300000000 | 130*       | 0,90         | 1365   | 0,3   | 150                  | 15         | 0,40           |                                |
| EB011400000000 | 140*       | 0,90         | 1465   | 0,3   | 160                  | 15         | 0,64           |                                |
| EB011500000000 | 150*       | 0,90         | 1565   | 0,3   | 170                  | 15         | 0,69           | F2 W2 130.0 190.0              |
| EB011520000000 | 152*/6"    | 0,90         | 1585   | 0,3   | 170                  | 15         | 0,70           |                                |
| EB011600000000 | 160*       | 0,90         | 1665   | 0,3   | 180                  | 15         | 0,73           |                                |
| EB011800000000 | 180*       | 0,90         | 1680   | 0,3   | 210                  | 15         | 0,97           |                                |
| EB012000000000 | 200*       | 0,90         | 1860   | 0,3   | 230                  | 15         | 1,08           | F2 W2 200.0 230.0              |
| EB012030000000 | 203*/8"    | 0,90         | 1885   | 0,3   | 230                  | 15         | 1,09           |                                |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# VULCANO® 15 EL (Cod. EC)



**Tubo de TPU a base de éster, de color negro, reforzado con espiral de acero recubierta en TPU de color cobre, para asegurar la máxima adhesión con la pared.** Superficie interna lisa para optimizar el flujo, espesor de pared de 1,5 mm constante para todos los diámetros. Material con propiedades electroconductoras permanentes; resistencia eléctrica  $<10^4$  Ohm/m. El tubo satisface los requisitos de las principales normativas en campo electroestático ATEX, ISO 8031. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

• Aplicaciones en ambientes a normativa ATEX. Para instalaciones de aspiración, industria de la cerámica y de la madera, aspiración de gravilla, siega, humos y polvos abrasivos.

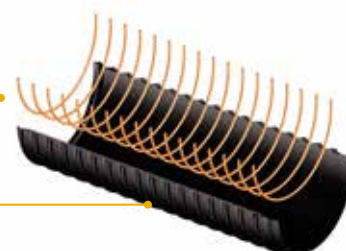
*Ester based TPU hose reinforced with TPU coated high adhesion steel spiral. Raw material with permanent electrical conductive features ( $R < 10^4$  Ohm/metre), according to ISO 8031. Smooth inside to ensure optimization of flow properties. Constant wall thickness of 1,5 mm for the whole diameter range. Strong but very flexible, it is suitable to heavy duty applications where a very good abrasion resistance is required. The hose is able to transfer electrostatic charges when installed on implants suitably earthed. The hose meets the requirements of the widely known regulations in electrostatic field: ATEX, ISO 8031.*

• Suction of granulates, abrasive powders and sawdust. For plastic woodworking and ceramic industries, dedusting and suction plants.



Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel spiral

TPU a base de éster / Ester based TPU hose



## Ficha técnica / Technical data

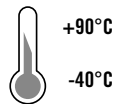
| Código         | Ø int.     | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|------------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.     | Min wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch    | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| EC010380000000 | 38*        | 1,50         | 530    | 9,5                | 40              | 20         | 0,07           |
| EC010400000000 | 40*        | 1,50         | 555    | 9,5                | 50              | 20         | 0,09           |
| EC010450000000 | 45*        | 1,50         | 620    | 9,0                | 50              | 20         | 0,10           |
| EC010500000000 | 50*        | 1,50         | 680    | 9,0                | 60              | 20         | 0,11           |
| EC010510000000 | 51*        | 1,50         | 690    | 9,0                | 60              | 20         | 0,11           |
| EC010600000000 | 60*        | 1,50         | 805    | 8,5                | 70              | 20         | 0,13           |
| EC010630000000 | 63*        | 1,50         | 840    | 8,0                | 70              | 20         | 0,19           |
| EC010650000000 | 65*        | 1,50         | 865    | 7,5                | 70              | 20         | 0,19           |
| EC010700000000 | 70*/2.3/4" | 1,50         | 1035   | 7,5                | 80              | 20         | 0,20           |
| EC010750000000 | 75*        | 1,50         | 1100   | 7,0                | 80              | 20         | 0,22           |
| EC010760000000 | 76*        | 1,50         | 1115   | 7,0                | 90              | 20         | 0,22           |
| EC010800000000 | 80*        | 1,50         | 1170   | 6,0                | 90              | 20         | 0,23           |
| EC010900000000 | 90*        | 1,50         | 1310   | 5,0                | 100             | 20         | 0,29           |
| EC011000000000 | 100*       | 1,50         | 1445   | 4,0                | 120             | 15         | 0,32           |
| EC011020000000 | 102*/4"    | 1,50         | 1475   | 3,5                | 120             | 15         | 0,32           |
| EC011100000000 | 110*       | 1,50         | 1585   | 3,2                | 130             | 15         | 0,35           |
| EC011520000000 | 152*/6"    | 1,50         | 2520   | 1,8                | 180             | 15         | 0,70           |
| EC011600000000 | 160*       | 1,50         | 2645   | 1,8                | 180             | 15         | 0,74           |
| EC012030000000 | 203*/8"    | 1,50         | 3170   | 1,2                | 230             | 15         | 1,10           |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# NEXT 07

(Cod. N7)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2- Ø 76-203

**Tubo translucido de TPU a base de éster reforzado con espiral de acero cobreado recubierto de TPU**, para garantizar una óptima adhesión con la pared y asegurar la máxima seguridad en uso. Superficie interna completamente lisa para optimizar el flujo del material transportado; espesor de pared 0,7 mm constante para todos los diámetros. Realizado con un TPU especial dotado de características combinadas que convierten el material de la pared en antiestático permanente ( $R < 10^9$  Ohm/metro), y resistente a los rayos UV. Capacidad de resistencia a la abrasión de 20 mm<sup>3</sup> (50% más alta de aquella de un tubo normal de TPU). Resistencia superior a la hidrólisis respecto a los tubos normales de TPU éster. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Industria de la cerámica y de la madera, plantas de aspiración de serrín, humos, y polvos abrasivos.

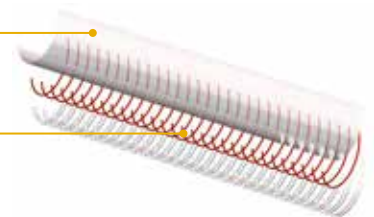
**Translucent ester based TPU duct reinforced with a TPU high adhesion coated copper colored steel spiral. Totally smooth inside to ensure optimization of flow properties.**

Constant wall thickness of 0,7 mm through all the diameter range. Strong but light and flexible, it's suitable to heavy duty applications where a very good abrasion resistance is required. In fact its capability of abrasion resistance is 20 mm<sup>3</sup>, 50% more than that of a conventional TPU hose. Resistant to mineral oils, ageing, atmospheric agents, ozone and to most chemicals. NEXT 07 is made by a special TPU that combines different properties which make the wall material permanent antistatic ( $10^9$  Ohm/meter) and resistant to UV. Thanks to the excellent quality of compound used, the hose is more resistant to Hydrolysis than a conventional ester-based TPU hose. It can be made conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.

- Suction of granules, abrasive powders, pellets, sawdust, fumes and abrasive powders even in critical conditions.

TPU a base de éster / Ester based TPU hose

Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel spiral



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Peso   | Vacio              | R. de curva-<br>tura | Lg. Rollo                        | Vol.           | Abrazaderas doble<br>puente W2 |
|----------------|-------------|--------------|--------|--------------------|----------------------|----------------------------------|----------------|--------------------------------|
| Code           | Ø Int.      | Min wall th. | Weight | Vac.               | Bending              | Coil lgth.                       | Vol.           | Double bridge W2               |
|                | mm/inch     | mm           | g/m    | m H <sub>2</sub> O | mm                   | m                                | m <sup>3</sup> |                                |
| N7010520000000 | 50,8/2"     | 0,7          | 385    | 2,0                | 50                   | 30                               | 0,181          | -                              |
| N7010600000000 | 60          | 0,7          | 505    | 1,7                | 70                   | 30                               | 0,212          | -                              |
| N7010630000000 | 63,5/2.1/2" | 0,7          | 540    | 1,7                | 70                   | 30                               | 0,301          | -                              |
| N7010650000000 | 65*         | 0,7          | 525    | 1,7                | 75                   | 30                               | 0,308          | -                              |
| N7010700000000 | 70*/2.3/4"  | 0,7          | 565    | 1,7                | 85                   | 30                               | 0,329          | -                              |
| N7010760000000 | 76,2/3"     | 0,7          | 615    | 1,7                | 90                   | 30                               | 0,356          | -                              |
| N7010800000000 | 80          | 0,7          | 645    | 1,6                | 95                   | 30                               | 0,372          | -                              |
| N7010900000000 | 90*         | 0,7          | 720    | 1,6                | 105                  | 20                               | 0,277          | -                              |
| N7011000000000 | 100         | 0,7          | 860    | 1,3                | 135                  | 20                               | 0,308          |                                |
| N7011020000000 | 102/4"      | 0,7          | 880    | 1,3                | 135                  | 20                               | 0,313          |                                |
| N7011100000000 | 110*        | 0,7          | 945    | 1,2                | 145                  | 20                               | 0,505          | F2 W2 100.0 127.0              |
| N7011200000000 | 120         | 0,7          | 1040   | 1,0                | 160                  | 20                               | 0,548          |                                |
| N7011270000000 | 127/5"      | 0,7          | 1100   | 1,0                | 210                  | 20                               | 0,578          |                                |
| N7011400000000 | 140*        | 0,7          | 1120   | 0,8                | 185                  | 20                               | 0,634          |                                |
| N7011520000000 | 152,4/6"    | 0,7          | 1345   | 0,8                | 230                  | 20                               | 0,817          |                                |
| N7011600000000 | 160*        | 0,7          | 1425   | 0,7                | 250                  | 20                               | 0,856          | F2 W2 130.0 190.0              |
| N7011800000000 | 180*        | 0,7          | 1490   | 0,5                | 270                  | 20                               | 0,958          |                                |
| N7012030000000 | 203,2/8"    | 0,7          | 1850   | 0,4                | 300                  | 15                               | 1,079          | F2 W2 200.0 230.0              |
| N7012540000000 | 254*/10"    | 0,7          | 2685   | 0,4                | 440                  | 10 m pz. dritti<br>10 m straight | 0,687          | F2 W2 250.0 330.0              |

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# NEXT 09

(Cod. N9)

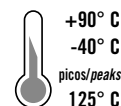


SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2- Ø 100-305



**Tubo translucido de TPU a base de éster reforzado con espiral de acero recubierto de TPU de color cobre**, para garantizar una óptima adhesión con la pared y asegurar la máxima seguridad en uso. Superficie interna completamente lisa para optimizar el flujo del material transportado; espesor de pared 0,9 mm constante para todos los diámetros. Realizado con un TPU especial dotado de características combinadas que convierten el material de la pared en antiestático permanente ( $R < 10^9$  Ohm/metro), y resistente a los rayos UV. Capacidad de resistencia a la abrasión de 20 mm<sup>3</sup> (50% más alta de aquella de un tubo normal de TPU). Resistencia superior a la hidrólisis respecto a los tubos normales de TPU éster. Antiestática conectando la espiral a tierra ( $R < 10^2$  Ohm/m).

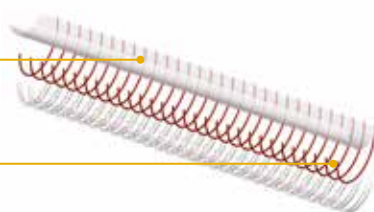
- Industria de la cerámica y de la madera, plantas de aspiración de serrín, humos, y polvos abrasivos.

*Translucent ester based TPU duct reinforced with a TPU high adhesion coated copper coloured steel spiral. Totally smooth inside to ensure optimization of flow properties. Constant wall thickness of 0,9 mm through all the diameter range. Strong but light and flexible, it's suitable for heavy duty applications where a very good abrasion resistance is required. In fact its capability of abrasion resistance is 20 mm<sup>3</sup>, 50% more than a conventional TPU hose. Resistant to mineral oils, ageing, atmospherical agents, ozone and to most chemicals. NEXT 09 is made with a special TPU that combines different properties which make the wall material permanent antistatic ( $R < 10^9$  Ohm/m) and resistant to UV. Thanks to the excellent quality of the compound used, the hose is more resistant to Hydrolysis than a conventional ester based TPU hose. It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

- Suction of granules, abrasive powders, pellets, sawdust, fumes even in critical conditions.

TPU a base de éster / Ester based TPU hose

Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel spiral



## Ficha técnica / Technical data

| Código        | Ø int.       | Min. Esp     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                      | Vol.           | Abrazaderas doble puente W2 |
|---------------|--------------|--------------|--------|--------------------|-----------------|--------------------------------|----------------|-----------------------------|
| Code          | Ø Int.       | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                     | Vol.           | Double bridge W2            |
|               | mm/inch      | mm           | g/m    | m H <sub>2</sub> O | mm              | m                              | m <sup>3</sup> |                             |
| N901025000000 | 25,4*/1"     | 0,9          | 235    | 5,0                | 30              | 30                             | 0,056          | -                           |
| N901027000000 | 27*          | 0,9          | 245    | 5,0                | 30              | 30                             | 0,059          | -                           |
| N901030000000 | 30*          | 0,9          | 255    | 5,0                | 35              | 30                             | 0,077          | -                           |
| N901032000000 | 31,8*/1.1/4" | 0,9          | 270    | 5,0                | 35              | 30                             | 0,081          | -                           |
| N901038000000 | 38,1*/1.1/2" | 0,9          | 355    | 5,0                | 40              | 30                             | 0,085          | -                           |
| N901040000000 | 40           | 0,9          | 370    | 5,0                | 40              | 30                             | 0,118          | -                           |
| N901045000000 | 45*          | 0,9          | 380    | 5,0                | 45              | 30                             | 0,131          | -                           |
| N901052000000 | 50,8/2"      | 0,9          | 425    | 4,0                | 50              | 30                             | 0,182          | -                           |
| N901060000000 | 60           | 0,9          | 555    | 3,0                | 70              | 30                             | 0,213          | -                           |
| N901063000000 | 63,5/2.1/2"  | 0,9          | 595    | 3,0                | 70              | 30                             | 0,303          | -                           |
| N901065000000 | 65*          | 0,9          | 580    | 3,0                | 75              | 30                             | 0,309          | -                           |
| N901076000000 | 76,2/3"      | 0,9          | 675    | 3,0                | 90              | 30                             | 0,358          | -                           |
| N901080000000 | 80           | 0,9          | 710    | 3,0                | 95              | 30                             | 0,374          | -                           |
| N901090000000 | 90*          | 0,9          | 795    | 2,5                | 105             | 20                             | 0,278          | -                           |
| N901100000000 | 100          | 0,9          | 945    | 2,0                | 135             | 20                             | 0,309          | F2 W2 100.0 127.0           |
| N901102000000 | 102/4"       | 0,9          | 960    | 2,0                | 135             | 20                             | 0,314          |                             |
| N901110000000 | 110          | 0,9          | 1035   | 2,0                | 145             | 20                             | 0,506          |                             |
| N901120000000 | 120          | 0,9          | 1140   | 1,5                | 160             | 20                             | 0,550          | F2 W2 130.0 190.0           |
| N901127000000 | 127/5"       | 0,9          | 1205   | 1,5                | 210             | 20                             | 0,580          |                             |
| N901140000000 | 140*         | 0,9          | 1230   | 1,0                | 185             | 20                             | 0,636          |                             |
| N901152000000 | 152,4/6"     | 0,9          | 1470   | 1,0                | 230             | 20                             | 0,819          | F2 W2 200.0 230.0           |
| N901160000000 | 160*         | 0,9          | 1555   | 1,0                | 250             | 20                             | 0,858          |                             |
| N901180000000 | 180*         | 0,9          | 1635   | 0,5                | 270             | 20                             | 0,961          |                             |
| N901203000000 | 203,2/8"     | 0,9          | 2015   | 0,5                | 300             | 15                             | 1,081          | F2 W2 250.0 330.0           |
| N901250000000 | 250*         | 0,9          | 2840   | 0,3                | 440             | 10 m pz.dritti / 10 m straight | 0,669          |                             |
| N901254000000 | 254*/10"     | 0,9          | 2885   | 0,3                | 440             | 10 m pz.dritti / 10 m straight | 0,690          |                             |
| N901305000000 | 305*/12"     | 0,9          | 4295   | 0,2                | 530             | 10 m pz.dritti / 10 m straight | 0,990          |                             |

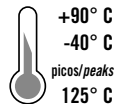
\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# NEXT 15

(Cod. N5)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2- Ø 100-203

**Tubo translucido de TPU a base de éster reforzado con espiral de acero recubierto de TPU de color cobre**, para garantizar una óptima adhesión con la pared y asegurar la máxima seguridad en uso. Superficie interna completamente lisa para optimizar el flujo del material transportado; espesor de pared 1,5 mm constante para todos los diámetros. Realizado con un TPU especial dotado de características combinadas que convierten el material de la pared en antiestático permanente ( $R < 10^9$  Ohm/metro), y resistente a los rayos UV. Capacidad de resistencia a la abrasión de 20 mm<sup>3</sup> (50% más alta de aquella de un tubo normal de TPU). Resistencia superior a la hidrólisis respecto a los tubos normales de TPU éster. Antiestática conectando la espiral a tierra ( $R < 10^2$  Ohm/m).

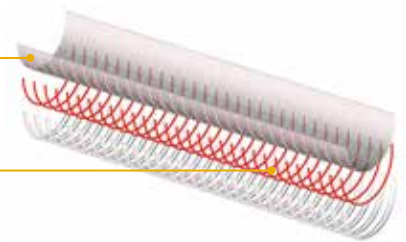
• Industria de la cerámica y de la madera, plantas de aspiración de serrín, humos, y polvos abrasivos.

**Translucent ester based TPU duct reinforced with a TPU coated high adhesion copper coloured steel spiral.** Totally smooth inside to ensure optimization of flow properties. Constant Wall thickness of 1,5 mm through all the diameter range. Strong but light and flexible, it's suitable to heavy duty applications where a very good abrasion resistance is required, thanks to a specially compounded Polyurethane 50% more resistant to abrasion of conventional ester based TPU. Resistant to mineral oils, ageing, atmospheric agents, ozone and to most chemicals. NEXT 15 is made by a special TPU that combines different properties which make the wall material permanent antistatic ( $R < 10^9$  Ohm/m) and resistant to UV. Thanks to the excellent quality of compound used, the hose is more resistant to Hydrolysis than a conventional ester based TPU hose. It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.

• Passage of highly abrasive granulates, pellets and chips. For granulate conveying systems in the plastic industry, industrial vacuum cleaners, printing machines.

TPU a base de éster / Ester based TPU hose

Espiral de acero cobreado recubierta de TPU  
TPU coated copper colored steel spiral



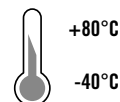
## Ficha técnica / Technical data

| Código        | Ø int.       | Min esp.     | Peso   | Vacio              | R. de curva-<br>tura | Lg. Rollo  | Vol.           | Abrazaderas doble<br>puente W2 |
|---------------|--------------|--------------|--------|--------------------|----------------------|------------|----------------|--------------------------------|
| Code          | Ø Int.       | Min wall th. | Weight | Vac.               | Bending              | Coil lgth. | Vol.           | Double bridge W2               |
|               | mm/inch      | mm           | g/m    | m H <sub>2</sub> O | mm                   | m          | m <sup>3</sup> |                                |
| N501040000000 | 40           | 1,5          | 475    | 9,5                | 90                   | 30         | 0,122          | -                              |
| N501045000000 | 45*          | 1,5          | 585    | 9,0                | 90                   | 30         | 0,137          | -                              |
| N501052000000 | 50,8/2"      | 1,5          | 640    | 9,0                | 90                   | 30         | 0,189          | -                              |
| N501060000000 | 60           | 1,5          | 765    | 8,5                | 95                   | 30         | 0,219          | -                              |
| N501063000000 | 63,5*/2.1/2" | 1,5          | 880    | 8,0                | 100                  | 30         | 0,312          | -                              |
| N501065000000 | 65*          | 1,5          | 900    | 7,5                | 100                  | 30         | 0,319          | -                              |
| N501076000000 | 76,2/3"      | 1,5          | 1160   | 7,0                | 110                  | 30         | 0,370          | -                              |
| N501080000000 | 80           | 1,5          | 1170   | 6,0                | 110                  | 30         | 0,386          | -                              |
| N501090000000 | 90*          | 1,5          | 1305   | 5,0                | 115                  | 20         | 0,286          | -                              |
| N501100000000 | 100          | 1,5          | 1365   | 4,0                | 120                  | 20         | 0,315          | -                              |
| N501102000000 | 102/4"       | 1,5          | 1390   | 4,0                | 120                  | 20         | 0,321          | -                              |
| N501110000000 | 110*         | 1,5          | 1450   | 3,2                | 130                  | 20         | 0,516          | F2 W2 100.0 127.0              |
| N501120000000 | 120          | 1,5          | 1580   | 3,0                | 150                  | 20         | 0,559          | -                              |
| N501127000000 | 127*/5"      | 1,5          | 1665   | 2,9                | 150                  | 20         | 0,589          | -                              |
| N501140000000 | 140*         | 1,5          | 2015   | 2,4                | 170                  | 20         | 0,650          | -                              |
| N501152000000 | 152,4/6"     | 1,5          | 2190   | 2,0                | 200                  | 20         | 0,834          | -                              |
| N501160000000 | 160*         | 1,5          | 2295   | 1,8                | 250                  | 20         | 0,872          | F2 W2 130.0 190.0              |
| N501180000000 | 180*         | 1,5          | 2575   | 1,5                | 300                  | 20         | 0,975          | -                              |
| N501203000000 | 203,2*/8"    | 1,5          | 3510   | 1,2                | 300                  | 15         | 1,099          | F2 W2 200.0 230.0              |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# EOLO PU EST (Cod. OU)



**Tubo transparente de TPU a base de éster, con espiral de refuerzo de PVC rígido antichoque**, de color gris oscuro; superficie interna perfectamente lisa, externa corrugada, es muy ligero y flexible. Presenta una notable resistencia a la abrasión y a la flexión; espesor de pared de 0,4 mm a 0,8 mm. Versión antiestática (con hilo de cobre) o con la pared de TPU ESPECIAL a base éster con propiedades antiestáticas permanentes (cód. OU 86), según pedido.

- Aspiración de polvos grava, gránulos y substancias abrasivas de la industria en general.

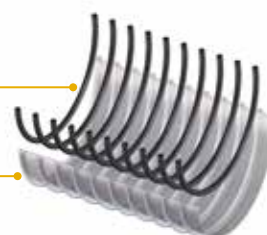
*Transparent ester based TPU hose, reinforced with a dark grey anti-shock rigid PVC spiral. Wall thickness from 0,4 mm to 0,8 mm. Inner surface completely smooth to maximise optimal flow. Resistant to abrasion and torsion; it has a good resistance to most chemicals, UV, ozone and atmospherical agents. On request it can be manufactured in the antistatic version, with copper wire for earthing to protect against static dissipation or in the permanent antistatic version (cod. OU 86).*

- Suction of abrasive media such as powders, pellets, granulates, fibres, can be used for dedusting and industrial cleanings.

Espiral de PVC rígido anti choque

Anti-shock rigid PVC spiral

TPU a base de éster / Ester based TPU hose



## Ficha técnica / Technical data

| Código         | Ø Int.      | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |                   |
|----------------|-------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|-------------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |                   |
|                | mm/inch     | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                   |
| OU010130000000 | 13*         | 0,4          | 2,8          | 80     | 2,5                | 20              | 20         | 0,013          |                   |
| OU010160000000 | 16*         | 0,4          | 2,8          | 90     | 2,5                | 25              | 20         | 0,018          |                   |
| OU010190000000 | 19,1*/3/4"  | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,022          |                   |
| OU010200000000 | 20          | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,025          |                   |
| OU010220000000 | 22*         | 0,4          | 2,8          | 120    | 2,5                | 28              | 20         | 0,028          |                   |
| OU010250000000 | 25          | 0,4          | 2,8          | 140    | 2,5                | 30              | 20         | 0,034          |                   |
| OU010300000000 | 30          | 0,4          | 2,8          | 170    | 2,5                | 35              | 20         | 0,051          |                   |
| OU010320000000 | 31,8/1.1/4" | 0,4          | 2,9          | 190    | 2                  | 35              | 20         | 0,054          |                   |
| OU010350000000 | 35          | 0,5          | 3,0          | 200    | 2                  | 45              | 20         | 0,059          |                   |
| OU010380000000 | 38,1/1.1/2" | 0,5          | 3,1          | 230    | 2                  | 50              | 20         | 0,080          |                   |
| OU010400000000 | 40          | 0,5          | 3,1          | 240    | 2                  | 60              | 20         | 0,083          | OU02 5m           |
| OU010450000000 | 45          | 0,5          | 3,2          | 290    | 2                  | 65              | 20         | 0,099          |                   |
| OU010500000000 | 50*         | 0,5          | 3,4          | 330    | 2                  | 70              | 20         | 0,109          |                   |
| OU010520000000 | 50,8/2"     | 0,5          | 3,4          | 330    | 2                  | 70              | 20         | 0,111          | OU01 20 m/OU02 5m |
| OU010550000000 | 55*         | 0,5          | 3,6          | 400    | 2                  | 75              | 20         | 0,119          |                   |
| OU010600000000 | 60          | 0,5          | 3,8          | 470    | 1,6                | 80              | 20         | 0,130          |                   |
| OU010630000000 | 63,5/2.1/2" | 0,5          | 3,9          | 520    | 1,6                | 80              | 20         | 0,183          |                   |
| OU010650000000 | 65*         | 0,5          | 3,9          | 530    | 1,6                | 90              | 20         | 0,186          |                   |
| OU010700000000 | 70/2.3/4"   | 0,6          | 4,2          | 560    | 1,6                | 95              | 30         | 0,339          |                   |
| OU010760000000 | 76,2/3"     | 0,6          | 4,2          | 610    | 1,6                | 100             | 30         | 0,365          |                   |
| OU010800000000 | 80          | 0,6          | 4,5          | 650    | 1,6                | 110             | 30         | 0,384          |                   |
| OU010900000000 | 90          | 0,6          | 4,6          | 750    | 1,4                | 125             | 30         | 0,429          |                   |
| OU011000000000 | 100         | 0,6          | 4,8          | 810    | 1,3                | 140             | 30         | 0,473          |                   |
| OU011020000000 | 102/4"      | 0,6          | 4,8          | 830    | 1,3                | 140             | 30         | 0,482          |                   |
| OU011100000000 | 110         | 0,6          | 5,1          | 940    | 1,2                | 150             | 30         | 0,692          |                   |
| OU011200000000 | 120         | 0,6          | 5,4          | 1120   | 1                  | 160             | 30         | 0,753          |                   |
| OU011270000000 | 127/5"      | 0,6          | 5,4          | 1180   | 1                  | 170             | 30         | 0,794          |                   |
| OU011300000000 | 130         | 0,7          | 5,7          | 1360   | 0,9                | 170             | 20         | 0,611          |                   |
| OU011400000000 | 140         | 0,7          | 5,7          | 1460   | 0,9                | 180             | 20         | 0,654          |                   |
| OU011500000000 | 151,5       | 0,7          | 5,8          | 1510   | 0,8                | 200             | 20         | 0,939          |                   |
| OU011520000000 | 152,4/6"    | 0,7          | 5,8          | 1520   | 0,8                | 200             | 20         | 0,945          |                   |
| OU011600000000 | 160         | 0,7          | 7,2          | 1940   | 0,7                | 220             | 20         | 0,893          |                   |
| OU011800000000 | 180         | 0,7          | 7,2          | 2180   | 0,4                | 250             | 20         | 0,995          |                   |
| OU012000000000 | 200         | 0,7          | 7,2          | 2240   | 0,4                | 260             | 20         | 1,647          |                   |
| OU012030000000 | 203,2/8"    | 0,7          | 7,2          | 2280   | 0,4                | 260             | 20         | 1,671          |                   |
| OU012500000000 | 250         | 0,8          | 8,0          | 3390   | 0,4                | 300             | 10         | 1,362          |                   |
| OU013000000000 | 300         | 0,8          | 8,2          | 4220   | 0,3                | 350             | 10         | 1,620          |                   |

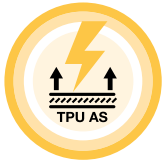
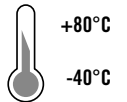
\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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**IP** disponible en stock / available on stock

# EOLO PU EST ASW

(Cod. OU 86)



Tubo transparente con la pared de TPU ESPECIAL a base éster con propiedades antiestáticas permanentes ( $R < 10^9$  Ohm/m) que facilitan la continua disipación de las cargas electrostáticas, además de mejorar el flujo, permite que se desprendan fácilmente los residuos de la pared del tubo. Espiral de refuerzo de PVC rígido antichoque de color gris oscuro. Buena resistencia a la abrasión y a la flexión. Grosor de pared 0,4 mm - 0,8 mm. Versión antiestática (con hilo de cobre) según pedido.

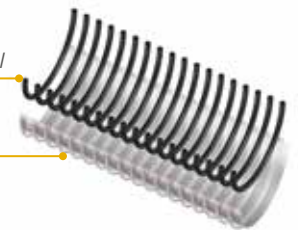
- Aspiración de polvos, gránulos y substancias abrasivas

*Transparent ester based TPU hose, reinforced with a dark grey anti-shock rigid PVC spiral. The special TPU formulation makes the hose wall permanent antistatic ( $R < 10^9$  Ohm/m), as it enables a continuous dissipation of electrostatic charges, as well as an optimization of flow properties (as a consequence of an easier detachment of the media conveyed from the wall). Excellent resistance to abrasion and torsion. Wall thickness from 0,4 to 0,8 mm. Available on request the AS version with copper wire.*

- Suction of powders, granulates, chips and abrasive solids

Espiral de PVC rígido anti choque / Anti-shock rigid PVC spiral

TPU a base de éster / Ester based TPU hose



## Ficha técnica / Technical data

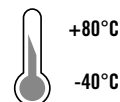
| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|-------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch     | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| OU860130000000 | 13*         | 0,4          | 2,8          | 80     | 2,5                | 20              | 20         | 0,013          |
| OU860160000000 | 16*         | 0,4          | 2,8          | 90     | 2,5                | 25              | 20         | 0,018          |
| OU860190000000 | 19,1*3/4"   | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,022          |
| OU860200000000 | 20          | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,025          |
| OU860220000000 | 22*         | 0,4          | 2,8          | 120    | 2,5                | 28              | 20         | 0,028          |
| OU860250000000 | 25          | 0,4          | 2,8          | 140    | 2,5                | 30              | 20         | 0,034          |
| OU860300000000 | 30          | 0,4          | 2,8          | 170    | 2,5                | 35              | 20         | 0,051          |
| OU860320000000 | 31,8/1.1/4" | 0,4          | 2,9          | 190    | 2                  | 35              | 20         | 0,054          |
| OU860350000000 | 35          | 0,5          | 3,0          | 200    | 2                  | 45              | 20         | 0,059          |
| OU860380000000 | 38,1/1.1/2" | 0,5          | 3,1          | 230    | 2                  | 50              | 20         | 0,080          |
| OU860400000000 | 40          | 0,5          | 3,1          | 240    | 2                  | 60              | 20         | 0,083          |
| OU860450000000 | 45          | 0,5          | 3,2          | 290    | 2                  | 65              | 20         | 0,099          |
| OU860500000000 | 50*         | 0,5          | 3,4          | 330    | 2                  | 70              | 20         | 0,109          |
| OU860520000000 | 50,8/2"     | 0,5          | 3,4          | 330    | 2                  | 70              | 20         | 0,111          |
| OU860550000000 | 55*         | 0,5          | 3,6          | 400    | 2                  | 75              | 20         | 0,119          |
| OU860600000000 | 60          | 0,5          | 3,8          | 470    | 1,6                | 80              | 20         | 0,130          |
| OU860630000000 | 63,5/2.1/2" | 0,5          | 3,9          | 520    | 1,6                | 80              | 20         | 0,183          |
| OU860650000000 | 65*         | 0,5          | 3,9          | 530    | 1,6                | 90              | 20         | 0,186          |
| OU860700000000 | 70/2.3/4"   | 0,6          | 4,2          | 560    | 1,6                | 95              | 30         | 0,339          |
| OU860760000000 | 76,2/3"     | 0,6          | 4,2          | 610    | 1,6                | 100             | 30         | 0,365          |
| OU860800000000 | 80          | 0,6          | 4,5          | 650    | 1,6                | 110             | 30         | 0,384          |
| OU860900000000 | 90          | 0,6          | 4,6          | 750    | 1,4                | 125             | 30         | 0,429          |
| OU861000000000 | 100         | 0,6          | 4,8          | 810    | 1,3                | 140             | 30         | 0,473          |
| OU861020000000 | 102/4"      | 0,6          | 4,8          | 830    | 1,3                | 140             | 30         | 0,482          |
| OU861100000000 | 110         | 0,6          | 5,1          | 940    | 1,2                | 150             | 30         | 0,692          |
| OU861200000000 | 120         | 0,6          | 5,4          | 1120   | 1                  | 160             | 30         | 0,753          |
| OU861270000000 | 127/5"      | 0,6          | 5,4          | 1180   | 1                  | 170             | 30         | 0,794          |
| OU861300000000 | 130         | 0,7          | 5,7          | 1360   | 0,9                | 170             | 20         | 0,611          |
| OU861400000000 | 140         | 0,7          | 5,7          | 1460   | 0,9                | 180             | 20         | 0,654          |
| OU861500000000 | 151,5       | 0,7          | 5,8          | 1510   | 0,8                | 200             | 20         | 0,939          |
| OU861520000000 | 152,4/6"    | 0,7          | 5,8          | 1520   | 0,8                | 200             | 20         | 0,840          |
| OU861600000000 | 160         | 0,7          | 7,2          | 1940   | 0,7                | 220             | 20         | 0,893          |
| OU861800000000 | 180         | 0,7          | 7,2          | 2180   | 0,4                | 250             | 20         | 1,493          |
| OU862000000000 | 200         | 0,7          | 7,2          | 2240   | 0,4                | 260             | 20         | 1,647          |
| OU862030000000 | 203,2/8"    | 0,7          | 7,2          | 2280   | 0,4                | 260             | 20         | 1,671          |
| OU862500000000 | 250         | 0,8          | 8,0          | 3390   | 0,4                | 300             | 10         | 1,362          |
| OU863000000000 | 300         | 0,8          | 8,2          | 4220   | 0,3                | 350             | 10         | 1,620          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity



# EOLO PUP EST (Cod. OP)



**Tubo transparente de TPU a base de éster, con espiral de refuerzo en PVC rígido antichoque** de color gris oscuro. Espesor de pared de 0,8 mm a 1,00 mm. Superficie interna perfectamente lisa. Alta flexibilidad, incluso a bajas temperaturas; notabe resistencia a la abrasión y a la flexión. Versión antiestática (con hilo de cobre) según pedido.

- Transporte de gravilla, y granulados abrasivos; industria de materias plasticas, cerámica, industria de la madera.

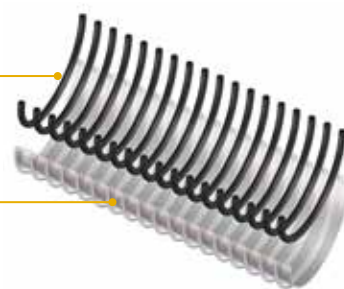
*Transparent ester based TPU hose, reinforced with a dark grey anti-shock rigid PVC spiral. Wall thickness from 0,8 mm to 1,0 mm. Specifically compounded for abrasive media, it keeps high flexibility even at low temperature. Inner surface completely smooth to maximise optimal flow. Resistant to abrasion and torsion.*

- Suction and delivery of abrasive media such as pellets and granulates. It finds optimal application in the plastic and ceramic industry. Can be used in woodworking under severe conditions. On request it can be manufactured with copper wire for earthing to protect against static dissipation.



Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

TPU a base de éster / Ester based TPU hose



## Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |      |
|----------------|--------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |      |
|                | mm/inch      | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |      |
| OP010300000000 | 30*          | 0,8          | 3,3          | 250    | 3,5                | 100             | 30         | 0,070          |      |
| OP010320000000 | 31,8*/1.1/4" | 0,8          | 3,3          | 260    | 3                  | 110             | 30         | 0,074          |      |
| OP010350000000 | 35*          | 0,8          | 3,5          | 290    | 3                  | 120             | 30         | 0,081          |      |
| OP010380000000 | 38,1/1.1/2"  | 0,8          | 3,5          | 310    | 3                  | 130             | 30         | 0,087          |      |
| OP010390000000 | 39*          | 0,8          | 3,5          | 320    | 3                  | 135             | 30         | 0,118          |      |
| OP010400000000 | 40           | 1,0          | 3,6          | 360    | 3                  | 140             | 30         | 0,121          |      |
| OP010450000000 | 45           | 1,0          | 3,9          | 450    | 3                  | 160             | 30         | 0,135          |      |
| OP010500000000 | 50*          | 1,0          | 4,3          | 550    | 3                  | 175             | 30         | 0,169          |      |
| OP010520000000 | 50,8/2"      | 1,0          | 4,3          | 560    | 3                  | 175             | 30         | 0,171          | OP02 |
| OP010600000000 | 60           | 1,0          | 4,3          | 650    | 3                  | 200             | 30         | 0,296          | OP02 |
| OP010630000000 | 63,5/2.1/2"  | 1,0          | 4,3          | 690    | 3                  | 230             | 30         | 0,311          |      |
| OP010650000000 | 65*          | 1,0          | 4,3          | 700    | 3                  | 230             | 30         | 0,318          |      |
| OP010700000000 | 70/2.3/4"    | 1,0          | 4,8          | 760    | 3                  | 250             | 30         | 0,344          |      |
| OP010760000000 | 76,2/3"      | 1,0          | 4,8          | 830    | 2,5                | 270             | 30         | 0,371          |      |
| OP010800000000 | 80           | 1,0          | 5,2          | 910    | 2,5                | 290             | 30         | 0,391          |      |
| OP010900000000 | 90           | 1,0          | 5,4          | 1080   | 2,5                | 360             | 30         | 0,581          |      |
| OP011000000000 | 100          | 1,0          | 5,9          | 1260   | 2,5                | 400             | 30         | 0,644          |      |
| OP011020000000 | 102/4"       | 1,0          | 5,9          | 1290   | 2,5                | 400             | 30         | 0,655          | OP02 |
| OP011100000000 | 110*         | 1,0          | 6,1          | 1400   | 2,5                | 440             | 30         | 0,704          |      |
| OP011200000000 | 120          | 1,0          | 6,1          | 1520   | 2,5                | 470             | 30         | 1,015          |      |
| OP011270000000 | 127*/5"      | 1,0          | 6,1          | 1610   | 2,5                | 500             | 30         | 1,069          |      |
| OP011300000000 | 130*         | 1,0          | 6,1          | 1640   | 2,5                | 520             | 30         | 1,092          |      |
| OP011400000000 | 140*         | 1,0          | 6,2          | 1810   | 2                  | 570             | 30         | 1,561          |      |
| OP011500000000 | 151,5*       | 1,0          | 6,6          | 2010   | 2                  | 600             | 20         | 1,265          |      |
| OP011520000000 | 152,4*/6"    | 1,0          | 6,6          | 2030   | 2                  | 600             | 20         | 1,272          |      |
| OP012540000000 | 254*/10"     | 1,2          | 9,4          | 3730   | 1                  | 500             | 10         | 1,397          |      |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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disponible en stock / available on stock

# URANO PU

(Cod. UR)



**Tubo de PVC gris con capa inferior de TPU antiabrasivo color rojo y espiral de refuerzo de PVC rígido anti choque.** Superficie interna lisa, externa semi lisa, muy resistente e indicado para trabajos pesados. La versión antiestática (disponible según pedido) se produce con hilo de cobre introducido en la pared plástica para responder mejor a las exigencias de resistencia a la abrasión, incluso al exterior.

- Industria de la construcción: aspiración y transporte de material altamente abrasivo (arena, cemento, residuos, gravilla, escombros). Utilizado en la versión antiestática (cód.UR 02) para el transporte de pellets en la industria de la madera.

*Grey PVC-P hose with a red completely antiabrasive TPU tube, reinforced with an anti-shock rigid PVC spiral. Inside surface smooth, outside semi rigid. Its strong structure with the TPU layer makes it particularly suitable whenever heavy duty and very abrasive conditions are required. The hose can be manufactured on request in the antistatic version, with a brassed steel wire inside the plastic wall, to meet still better the abrasion resistance requirements even on the external surface.*

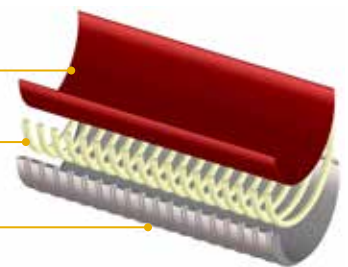
- Suction and discharge of abrasive liquids (slurry, sand, cement, gravel) in building and industry in general; in woodworking industry for the passage of pellets (AS version, code UR 02).



Capa inferior de TPU antiabrasivo / Red antiabrasive TPU tube

Espiral de PVC rígido anti choque / Anti-shock rigid PVC spiral

Tubo de PVC-P/ PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                       |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                       |
| UR010380000000 | 38,1*/1.1/2" | 3,9          | 4,7          | 680    | 5,0   | 15    | 10                 | 155             | 50         | 0,182          |                                                                                       |
| UR010400000000 | 40*          | 3,9          | 4,7          | 710    | 5,0   | 15    | 10                 | 160             | 50         | 0,221          |                                                                                       |
| UR010450000000 | 45*          | 4,0          | 4,9          | 830    | 4,0   | 12    | 10                 | 180             | 50         | 0,246          |                                                                                       |
| UR010500000000 | 50*          | 4,3          | 5,2          | 980    | 4,0   | 12    | 9                  | 200             | 50         | 0,261          |                                                                                       |
| UR010520000000 | 50,8/2"      | 4,3          | 5,2          | 990    | 4,0   | 12    | 9                  | 200             | 50         | 0,264          |                                                                                       |
| UR010600000000 | 60*          | 4,5          | 5,5          | 1230   | 4,0   | 12    | 9                  | 240             | 50         | 0,409          |                                                                                       |
| UR010630000000 | 63,5*/2.1/2" | 4,7          | 5,7          | 1360   | 4,0   | 12    | 9                  | 260             | 50         | 0,539          |                                                                                       |
| UR010700000000 | 70*          | 5,0          | 6,1          | 1570   | 3,0   | 9     | 9                  | 280             | 50         | 0,592          |                                                                                       |
| UR010760000000 | 76           | 5,0          | 6,1          | 1690   | 3,0   | 9     | 9                  | 310             | 50         | 0,677          |                                                                                       |
| UR010800000000 | 80*          | 5,1          | 6,2          | 1790   | 3,0   | 9     | 9                  | 320             | 50         | 0,710          |                                                                                       |
| UR010900000000 | 90           | 5,3          | 6,4          | 2090   | 3,0   | 9     | 9                  | 360             | 30         | 0,526          |                                                                                       |
| UR011000000000 | 100*         | 6,0          | 7,3          | 2650   | 3,0   | 9     | 8,5                | 410             | 30         | 0,880          |                                                                                       |
| UR011020000000 | 102/4"       | 6,0          | 7,3          | 2700   | 3,0   | 9     | 8,5                | 410             | 30         | 0,895          | UR02                                                                                  |
| UR011100000000 | 110*         | 6,1          | 7,4          | 2930   | 3,0   | 9     | 8,5                | 450             | 30         | 0,998          |                                                                                       |
| UR011200000000 | 120*         | 6,2          | 7,6          | 3270   | 2,5   | 7,5   | 8                  | 480             | 30         | 1,082          |                                                                                       |
| UR011270000000 | 127*/5"      | 6,3          | 7,7          | 3510   | 2,5   | 7,5   | 8                  | 510             | 30         | 1,139          |                                                                                       |
| UR011500000000 | 151,5*       | 6,7          | 8,9          | 4700   | 2,0   | 6     | 8                  | 610             | 20         | 1,354          |                                                                                       |
| UR011520000000 | 152,4/6"     | 6,7          | 8,9          | 4730   | 2,0   | 6     | 8                  | 610             | 20         | 1,362          |                                                                                       |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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 disponible en stock / available on stock

# URANO HD SUPER (Cod. UH)



**Tubo de PVC de color azul revestido internamente de TPU antiabrasivo rojo y con una espiral de refuerzo de PVC rígido anti choque.** Superficie interna lisa y externa semi lisa. Capa inferior de TPU de hasta 2,2 mm de espesor; óptima resistencia a la abrasión y a la depresión, es la mejor de su categoría. La versión antiestática (disponible según pedido) se produce con hilo de cobre introducido en la pared plástica para responder mejor a las exigencias de resistencia a la abrasión incluso al exterior.

- Industria de la construcción : aspiración y transporte de material altamente abrasivo, (arena, cemento, residuos, gravilla, escombros).

*Blue PVC-P hose with a red completely antiabrasive TPU tube reinforced with an anti-shock rigid PVC spiral. Inside surface smooth, outside semi rigid. Very strong with a TPU inner layer of 2,2 mm. Excellent resistance to abrasion and vacuum, the best of its class. Upon request, it can be manufactured in the antistatic version with the brassed steel wire inside the plastic wall, to meet still better the abrasion resistance requirements even on the external surface.*

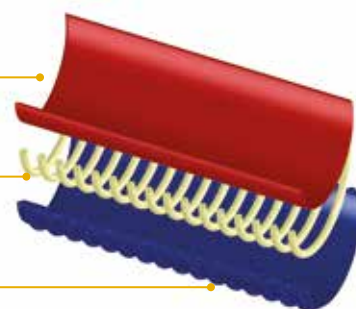
- Suction and discharge of abrasives (slurry, sand, cement, grains, gravel) in buildings and industry in general.



Capa inferior de TPU antiabrasivo / Red antiabrasive TPU tube

Espiral de PVC rígido anti choque / Anti-shock rigid PVC spiral

Tubo de PVC-P/ PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| UH010630000000 | 63,5*/2.1/2" | 4,9          | 6,5          | 1430   | 4,5   | 13,5  | 10                 | 390             | 50         | 0,783          |
| UH010760000000 | 76,2*/3"     | 5,4          | 7,4          | 1910   | 4,5   | 13,5  | 10                 | 470             | 50         | 0,932          |
| UH011020000000 | 102/4"       | 6,7          | 9,6          | 3310   | 4,0   | 12    | 9,5                | 600             | 30         | 1,454          |
| UH011270000000 | 127/5"       | 7,1          | 10,1         | 4370   | 3,5   | 10,5  | 9,5                | 750             | 30         | 1,766          |
| UH011520000000 | 152/6"       | 8,8          | 12,0         | 6350   | 3,0   | 9     | 9,5                | 900             | 20         | 2,556          |

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# ARIANNA PU

(Cod. AU)



**Tubo de color azul de TPU con refuerzo en hilo de poliéster de alta tenacidad.** Muy ligero y flexible incluso a bajas temperaturas; elevada resistencia a la abrasión, a la hidrólisis y a la flexión.

- Aire comprimido, neumático, circuitos de refrigeración, pistola de pintura, chorro de arena y aspiración de material abrasivo.

**Blue TPU hose with high tenacity Polyester yarn reinforcement.** Very light and flexible even at low temperatures; high resistance to abrasion, bendings and Hydrolysis. High safety guaranteed by tight connection on fittings.

- Compressed air, pneumatic tools and cooling lines, spray and painting guns, sandblast and abrasion resistant applications in general



Tubo de TPU / TPU hose

Refuerzo textil de poliéster

Polyester yarn reinforcement

Tubo de TPU / TPU hose



## Ficha técnica / Technical data

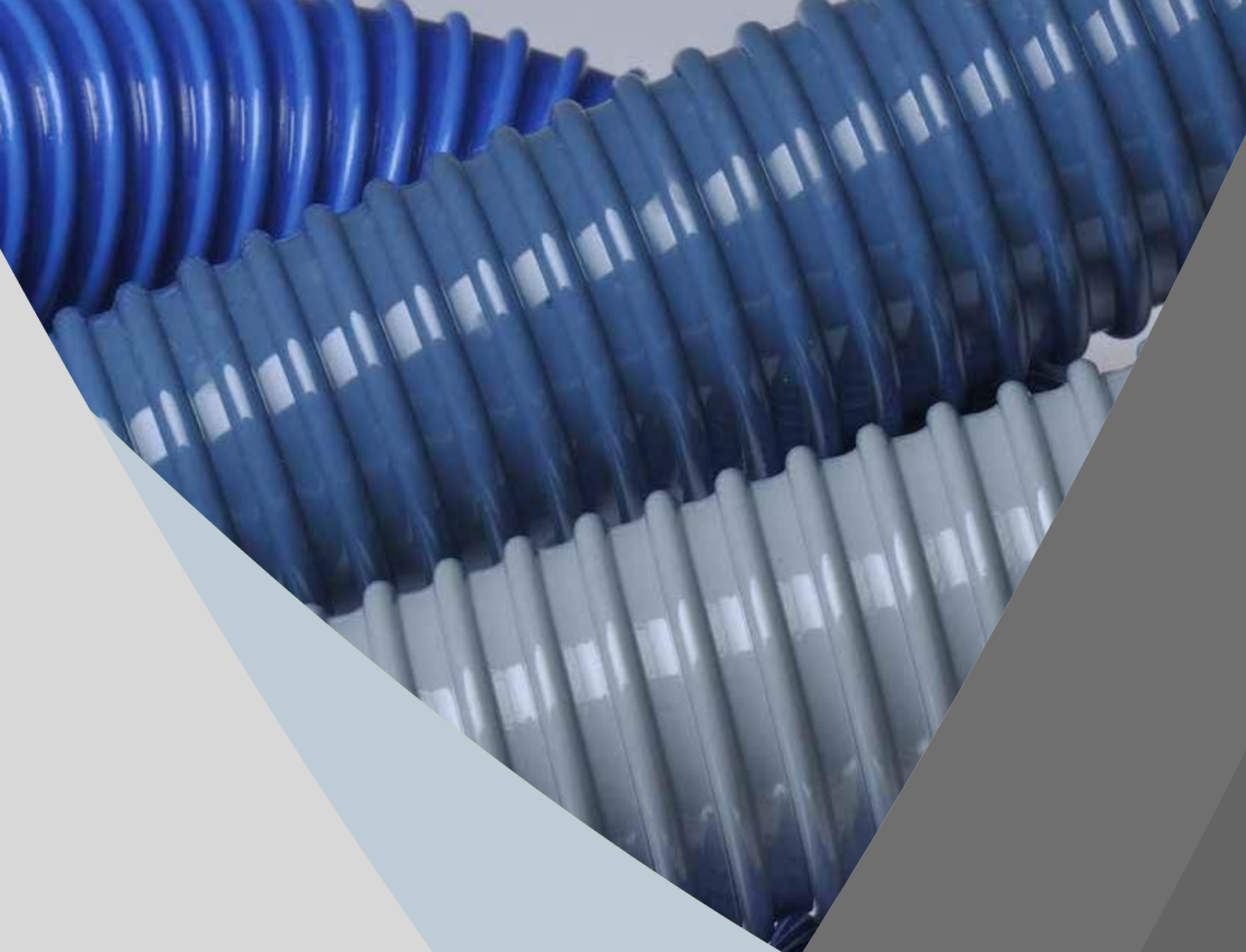
| Código         | Ø Int.   | Ø Est.  | Peso   | P.T.  | P.R.  | R. de curvatura | Lg. Rollo  | Vol.  |  |
|----------------|----------|---------|--------|-------|-------|-----------------|------------|-------|--|
| Code           | Ø Int.   | Ø Out.  | Weight | W.P.  | B.P.  | Bending         | Coil lgth. | Vol.  |  |
|                | mm/inch  | mm/inch | g/m    | [bar] | [bar] | mm              | m          | m³    |  |
| AU010060010000 | 6        | 10      | 60     | 20    | 60    | 30              | 100        | 0,020 |  |
| AU010065010000 | 6,5      | 10      | 55     | 20    | 60    | 30              | 100        | 0,020 |  |
| AU010075011500 | 7,5*     | 11,5    | 75     | 20    | 60    | 40              | 100        | 0,025 |  |
| AU010080012000 | 8        | 12      | 75     | 20    | 60    | 40              | 100        | 0,025 |  |
| AU010095013500 | 9,5/3/8" | 13,5    | 90     | 20    | 60    | 50              | 100        | 0,031 |  |
| AU010100014500 | 10       | 14,5    | 105    | 20    | 60    | 50              | 100        | 0,035 |  |
| AU010110016000 | 11       | 16      | 130    | 20    | 60    | 60              | 100        | 0,041 |  |
| AU010120017500 | 12       | 17,5    | 155    | 20    | 60    | 60              | 100        | 0,049 |  |
| AU010130019000 | 13       | 19      | 185    | 20    | 60    | 70              | 100        | 0,058 |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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disponible en stock / available on stock





# **Aire-Humos-Gases** **Air, Fumes and Gases**



**EOLO SL**  
**EOLO L**  
**EOLO**  
**EOLO SE**



# EOLO SL (Cod. ES)



**Tubo de PVC plastificado de color azul claro, con espiral de refuerzo de PVC rígido antichoque.** Interno perfectamente liso, externo corrugado. Es el más ligero de toda la gama. Resistente a bajas temperaturas.

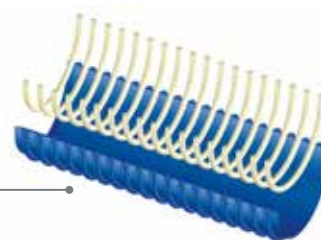
- Ventilación y acondicionamiento industrial: aspiración de aire, humos y gases.

*Light blue plasticized PVC duct reinforced with anti-shock rigid PVC spiral. Perfectly smooth inside, outside corrugated. The lightest and most flexible of the range. Resistant to low temperatures.*

- Suction of air, fumes, gas. Conditioning, aeration.

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / Plasticized PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|-------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch     | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| ES010250000000 | 25          | 0,6          | 2,5          | 130    | 0,8                | 40              | 30         | 0,039          |
| ES010300000000 | 30          | 0,6          | 2,5          | 150    | 0,8                | 40              | 30         | 0,052          |
| ES010320000000 | 31,8/1.1/4" | 0,7          | 2,5          | 170    | 0,7                | 40              | 30         | 0,061          |
| ES010350000000 | 35          | 0,7          | 2,6          | 180    | 0,7                | 40              | 30         | 0,087          |
| ES010380000000 | 38,1/1.1/2" | 0,7          | 2,6          | 200    | 0,7                | 50              | 30         | 0,094          |
| ES010390000000 | 39*         | 0,7          | 2,7          | 210    | 0,7                | 55              | 30         | 0,112          |
| ES010400000000 | 40          | 0,7          | 2,7          | 220    | 0,7                | 60              | 30         | 0,114          |
| ES010450000000 | 45          | 0,7          | 2,7          | 240    | 0,7                | 80              | 30         | 0,129          |
| ES010500000000 | 50          | 0,7          | 2,9          | 280    | 0,7                | 90              | 30         | 0,179          |
| ES010515000000 | 51,5*       | 0,7          | 2,9          | 290    | 0,7                | 90              | 30         | 0,183          |
| ES010520000000 | 50,8/2"     | 0,7          | 2,9          | 290    | 0,7                | 90              | 30         | 0,181          |
| ES010550000000 | 55*         | 0,7          | 3,1          | 330    | 0,7                | 95              | 30         | 0,196          |
| ES010600000000 | 60          | 0,7          | 3,4          | 410    | 0,6                | 100             | 30         | 0,192          |
| ES010630000000 | 63,5/2.1/2" | 0,7          | 3,5          | 460    | 0,6                | 100             | 30         | 0,305          |
| ES010650000000 | 65*         | 0,7          | 3,5          | 470    | 0,6                | 100             | 30         | 0,311          |
| ES010700000000 | 70/2.3/4"   | 0,7          | 3,8          | 480    | 0,5                | 110             | 30         | 0,335          |
| ES010760000000 | 76,2/3"     | 0,7          | 3,8          | 530    | 0,5                | 120             | 30         | 0,362          |
| ES010777000000 | 77,7*       | 0,7          | 3,8          | 540    | 0,5                | 120             | 30         | 0,368          |
| ES010800000000 | 80          | 0,8          | 4,0          | 580    | 0,5                | 130             | 30         | 0,380          |
| ES010900000000 | 90*         | 0,8          | 4,1          | 670    | 0,4                | 150             | 30         | 0,424          |
| ES011000000000 | 100         | 0,8          | 4,3          | 740    | 0,4                | 160             | 30         | 0,469          |
| ES011020000000 | 102/4"      | 0,8          | 4,3          | 750    | 0,4                | 160             | 30         | 0,478          |
| ES011035000000 | 103,5*      | 0,8          | 4,3          | 760    | 0,4                | 170             | 30         | 0,646          |
| ES011100000000 | 110         | 0,8          | 4,7          | 880    | 0,4                | 190             | 30         | 0,688          |
| ES011200000000 | 120         | 0,8          | 4,8          | 990    | 0,4                | 200             | 30         | 0,746          |
| ES011270000000 | 127/5"      | 0,8          | 4,9          | 1080   | 0,3                | 230             | 30         | 0,985          |
| ES011300000000 | 130*        | 0,8          | 5,1          | 1170   | 0,3                | 250             | 30         | 1,009          |
| ES011400000000 | 140*        | 0,8          | 5,1          | 1250   | 0,3                | 260             | 30         | 1,081          |
| ES011500000000 | 151,5       | 0,9          | 5,5          | 1460   | 0,3                | 280             | 20         | 0,936          |
| ES011520000000 | 152,4/6"    | 0,9          | 5,6          | 1510   | 0,3                | 280             | 20         | 0,942          |
| ES011600000000 | 160*        | 1,0          | 6,1          | 1620   | 0,2                | 280             | 20         | 0,992          |
| ES011800000000 | 180*        | 1,0          | 6,1          | 1820   | 0,2                | 450             | 20         | 1,476          |
| ES012000000000 | 200*        | 1,0          | 6,6          | 2120   | 0,2                | 600             | 20         | 1,637          |
| ES012030000000 | 203,2*/8"   | 1,0          | 6,6          | 2160   | 0,2                | 600             | 20         | 1,662          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# EOL L

(Cod. EL)



**Tubo de PVC plastificado de color gris oscuro, con espiral de refuerzo de PVC rígido antichoque.** Superficie interna perfectamente lisa, externa corrugada. Muy ligero y flexible, resistente a las bajas temperaturas, a los agentes atmosféricos y a numerosas sustancias químicas. Versión antiestática (con hilo de cobre) según pedido.

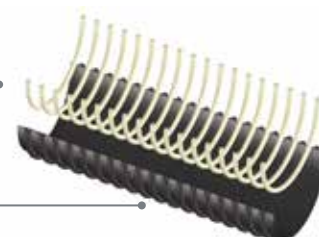
- Ventilación y acondicionamiento industrial: aspiración de aire, humos y gases; industria de la madera para aspiración de serrín y astillas.

*Dark gray plasticized PVC duct reinforced with anti-shock rigid PVC spiral. Perfectly smooth inside, outside corrugated. More flexible and lighter than Eolo, it keeps unchanged the technical properties (wear, resistance and bending), thanks to the perfect balance between weight and mechanical resistance. Resistant to atmospherical agents and to most chemicals, as well as to low temperatures. Antistatic version with copper wire on request.*

- Aerating and conditioning plants, woodworking plants: suction of air, fumes, gases, sawing, dust.

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / Plasticized PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|-------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|--------------------------------------------------------------------------------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                      |
|                | mm/inch     | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                      |
| EL010250000000 | 25          | 0,8          | 2,7          | 150    | 2,5                | 30              | 50         | 0,073          |                                                                                      |
| EL010270000000 | 27*         | 0,8          | 2,7          | 160    | 2,5                | 30              | 50         | 0,082          |                                                                                      |
| EL010300000000 | 30          | 0,8          | 2,8          | 190    | 2,5                | 40              | 50         | 0,115          |                                                                                      |
| EL010320000000 | 31,8/1.1/4" | 0,8          | 2,8          | 200    | 2                  | 40              | 50         | 0,121          |                                                                                      |
| EL010350000000 | 35          | 0,8          | 2,9          | 210    | 2                  | 40              | 50         | 0,131          |                                                                                      |
| EL010380000000 | 38,1/1.1/2" | 0,8          | 3,1          | 250    | 2                  | 50              | 50         | 0,142          |                                                                                      |
| EL010390000000 | 39*         | 0,8          | 3,1          | 260    | 2                  | 50              | 50         | 0,145          |                                                                                      |
| EL010400000000 | 40          | 0,8          | 3,1          | 260    | 2                  | 50              | 50         | 0,177          |                                                                                      |
| EL010450000000 | 45          | 0,8          | 3,4          | 330    | 2                  | 60              | 50         | 0,199          |                                                                                      |
| EL010500000000 | 50          | 0,9          | 3,7          | 410    | 2                  | 60              | 50         | 0,248          |                                                                                      |
| EL010515000000 | 51,5*       | 0,9          | 3,7          | 420    | 2                  | 60              | 50         | 0,254          |                                                                                      |
| EL010520000000 | 50,8/2"     | 0,9          | 3,7          | 420    | 2                  | 60              | 50         | 0,251          |                                                                                      |
| EL010550000000 | 55*         | 0,9          | 3,7          | 450    | 2                  | 70              | 50         | 0,270          |                                                                                      |
| EL010600000000 | 60          | 0,9          | 3,7          | 490    | 1,6                | 80              | 50         | 0,345          |                                                                                      |
| EL010630000000 | 63,5/2.1/2" | 0,9          | 3,7          | 520    | 1,6                | 80              | 50         | 0,408          |                                                                                      |
| EL010650000000 | 65*         | 0,9          | 3,7          | 530    | 1,6                | 80              | 50         | 0,417          |                                                                                      |
| EL010700000000 | 70/2.3/4"   | 1,0          | 3,9          | 550    | 1,5                | 90              | 50         | 0,448          |                                                                                      |
| EL010750000000 | 75          | 1,0          | 4,0          | 610    | 1,5                | 90              | 50         | 0,598          |                                                                                      |
| EL010760000000 | 76,2/3"     | 1,0          | 4,0          | 620    | 1,5                | 100             | 50         | 0,606          |                                                                                      |
| EL010777000000 | 77,7*       | 1,0          | 4,0          | 630    | 1,5                | 100             | 50         | 0,617          |                                                                                      |
| EL010800000000 | 80          | 1,0          | 4,6          | 740    | 1,5                | 100             | 50         | 0,642          |                                                                                      |
| EL010900000000 | 90          | 1,0          | 4,6          | 830    | 1,4                | 110             | 30         | 0,429          |                                                                                      |
| EL011000000000 | 100         | 1,0          | 4,9          | 930    | 1,3                | 130             | 30         | 0,474          |                                                                                      |
| EL011020000000 | 102/4"      | 1,0          | 4,9          | 950    | 1,3                | 130             | 30         | 0,644          |                                                                                      |
| EL011035000000 | 103,5*      | 1,0          | 4,9          | 960    | 1,3                | 130             | 30         | 0,653          |                                                                                      |
| EL011050000000 | 105*        | 1,0          | 5,0          | 1000   | 1,2                | 130             | 30         | 0,662          |                                                                                      |
| EL011100000000 | 110         | 1,0          | 5,2          | 1070   | 1,2                | 140             | 30         | 0,694          |                                                                                      |
| EL011200000000 | 120         | 1,0          | 5,2          | 1160   | 1                  | 150             | 30         | 0,751          |                                                                                      |
| EL011250000000 | 125*        | 1,0          | 5,2          | 1210   | 1                  | 150             | 30         | 0,780          |                                                                                      |
| EL011270000000 | 127/5"      | 1,0          | 5,2          | 1230   | 1                  | 150             | 30         | 0,791          |                                                                                      |
| EL011300000000 | 130*        | 1,0          | 5,2          | 1260   | 0,9                | 160             | 30         | 0,809          |                                                                                      |
| EL011400000000 | 140*        | 1,0          | 5,2          | 1350   | 0,9                | 170             | 30         | 1,155          |                                                                                      |
| EL011500000000 | 151,5       | 1,1          | 5,6          | 1570   | 0,8                | 180             | 20         | 0,937          |                                                                                      |
| EL011520000000 | 152,4*/6"   | 1,1          | 5,6          | 1580   | 0,8                | 180             | 20         | 0,942          |                                                                                      |
| EL011600000000 | 160         | 1,1          | 6,3          | 1730   | 0,7                | 190             | 20         | 0,884          |                                                                                      |
| EL011800000000 | 180         | 1,1          | 6,3          | 1940   | 0,4                | 210             | 20         | 0,986          |                                                                                      |
| EL012000000000 | 200         | 1,1          | 6,5          | 2110   | 0,4                | 230             | 20         | 1,636          |                                                                                      |
| EL012030000000 | 203,2*/8"   | 1,1          | 6,5          | 2140   | 0,4                | 230             | 20         | 1,660          |                                                                                      |
| EL012500000000 | 250*        | 1,2          | 7,3          | 3170   | 0,4                | 270             | 10         | 1,355          |                                                                                      |
| EL013000000000 | 300*        | 1,2          | 7,4          | 3860   | 0,3                | 300             | 10         | 1,612          |                                                                                      |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock

**EOLO** (Cod. EO)



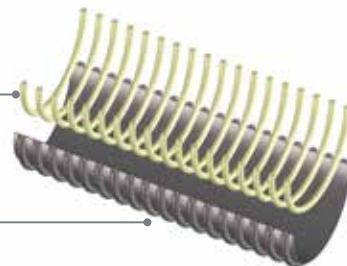
**Tubo de PVC plastificado en color gris, con espiral de refuerzo de PVC rígido antichoque.** Superficie interna perfectamente lisa, y externa corrugada. Muy ligero y flexible. resistente a las bajas temperaturas, a los agentes atmosféricos y a numerosas substancias químicas. Versión antiestática (con hilo de cobre) según pedido. • Acondicionamiento y ventilación industrial: aspiración de aire, humos y gases; industria de la madera para aspiración de serrín y astillas.

*Gray plasticized PVC duct reinforced with anti-shock rigid PVC spiral. Perfectly smooth inside, outside corrugated. Very light and flexible. Resistant to atmospherical agents and to most chemicals. Antistatic version with copper wire available on request.*

• Suction of air, fumes, gas, dust, sawing, wood chips. Industrial conditioning and ventilation systems, dust extraction plants

Espiral de PVC rigido anti choque / Anti-shock rigid PVC spiral

Tubo de PVC-P / Plasticized PVC hose



Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|-------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|--|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |  |
|                | mm/inch     | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |  |
| E0010130000000 | 13*         | 0,8          | 2,8          | 90     | 4,5                | 20              | 30         | 0,019          |  |
| E0010150000000 | 15          | 0,8          | 2,8          | 100    | 4,5                | 20              | 30         | 0,023          |  |
| E0010160000000 | 16          | 0,8          | 2,8          | 110    | 4,5                | 20              | 30         | 0,025          |  |
| E0010190000000 | 19,1/3/4"   | 0,8          | 2,8          | 120    | 4                  | 30              | 30         | 0,032          |  |
| E0010200000000 | 20          | 0,8          | 2,8          | 130    | 4                  | 30              | 30         | 0,036          |  |
| E0010220000000 | 22*         | 0,8          | 2,8          | 140    | 4                  | 30              | 30         | 0,036          |  |
| E0010250000000 | 25          | 1,0          | 2,9          | 180    | 4                  | 40              | 50         | 0,073          |  |
| E0010300000000 | 30          | 1,0          | 3,0          | 220    | 3,5                | 50              | 50         | 0,115          |  |
| E0010320000000 | 31,8/1.1/4" | 1,0          | 3,1          | 240    | 3,5                | 50              | 50         | 0,122          |  |
| E0010350000000 | 35          | 1,0          | 3,3          | 270    | 3,5                | 50              | 50         | 0,133          |  |
| E0010380000000 | 38,1/1.1/2" | 1,0          | 3,5          | 320    | 3                  | 60              | 50         | 0,144          |  |
| E0010390000000 | 39*         | 1,0          | 3,5          | 320    | 3                  | 60              | 50         | 0,177          |  |
| E0010400000000 | 40          | 1,0          | 3,5          | 330    | 3                  | 60              | 50         | 0,180          |  |
| E0010450000000 | 45          | 1,0          | 3,8          | 410    | 3                  | 70              | 50         | 0,202          |  |
| E0010500000000 | 50          | 1,0          | 4,1          | 490    | 3                  | 80              | 50         | 0,251          |  |
| E0010515000000 | 51,5*       | 1,0          | 4,1          | 500    | 3                  | 80              | 50         | 0,258          |  |
| E0010520000000 | 50,8/2"     | 1,0          | 4,1          | 500    | 3                  | 80              | 50         | 0,255          |  |
| E0010550000000 | 55*         | 1,0          | 4,2          | 560    | 3                  | 80              | 50         | 0,274          |  |
| E0010600000000 | 60          | 1,0          | 4,2          | 600    | 3                  | 90              | 50         | 0,394          |  |
| E0010630000000 | 63,5/2.1/2" | 1,0          | 4,2          | 640    | 3                  | 100             | 50         | 0,414          |  |
| E0010650000000 | 65          | 1,0          | 4,2          | 650    | 3                  | 100             | 50         | 0,423          |  |
| E0010700000000 | 70/2.3/4"   | 1,2          | 4,5          | 700    | 3                  | 110             | 50         | 0,455          |  |
| E0010760000000 | 76,2/3"     | 1,2          | 4,6          | 790    | 2,5                | 110             | 50         | 0,615          |  |
| E0010777000000 | 77,7*       | 1,2          | 4,6          | 800    | 2,5                | 120             | 50         | 0,626          |  |
| E0010800000000 | 80          | 1,2          | 5,1          | 900    | 2,5                | 120             | 50         | 0,649          |  |
| E0010900000000 | 90*         | 1,2          | 5,3          | 1060   | 2,5                | 140             | 30         | 0,435          |  |
| E0011000000000 | 100         | 1,2          | 5,8          | 1240   | 2,5                | 150             | 30         | 0,643          |  |
| E0011020000000 | 102/4"      | 1,2          | 5,8          | 1270   | 2,5                | 150             | 30         | 0,654          |  |
| E0011035000000 | 103,5*      | 1,2          | 5,8          | 1280   | 2,5                | 150             | 30         | 0,663          |  |
| E0011050000000 | 105*        | 1,2          | 5,8          | 1300   | 2,5                | 160             | 30         | 0,672          |  |
| E0011100000000 | 110         | 1,3          | 5,9          | 1370   | 2,5                | 160             | 30         | 0,702          |  |
| E0011200000000 | 120         | 1,3          | 5,9          | 1490   | 2,5                | 180             | 30         | 0,759          |  |
| E0011270000000 | 127/5"      | 1,3          | 6,0          | 1610   | 2,5                | 190             | 30         | 0,801          |  |
| E0011300000000 | 130*        | 1,3          | 6,0          | 1650   | 2,5                | 190             | 30         | 0,818          |  |
| E0011400000000 | 140         | 1,3          | 6,1          | 1820   | 2                  | 200             | 30         | 1,169          |  |
| E0011500000000 | 151,5       | 1,3          | 6,4          | 1980   | 2                  | 220             | 20         | 1,262          |  |
| E0011520000000 | 152,4*/6"   | 1,3          | 6,4          | 1990   | 2                  | 220             | 20         | 1,269          |  |
| E0011600000000 | 160*        | 1,5          | 7,0          | 2180   | 1,5                | 230             | 20         | 1,336          |  |
| E0011700000000 | 170*        | 1,5          | 7,0          | 2320   | 1,5                | 240             | 20         | 1,413          |  |
| E0011800000000 | 180*        | 1,5          | 7,0          | 2450   | 1,5                | 250             | 20         | 1,490          |  |
| E0012000000000 | 200         | 1,5          | 7,3          | 2710   | 1,5                | 280             | 20         | 1,648          |  |
| E0012030000000 | 203,2*/8"   | 1,5          | 7,3          | 2750   | 1,5                | 280             | 20         | 1,673          |  |
| E0012500000000 | 250*        | 1,5          | 7,6          | 3560   | 1                  | 330             | 10         | 1,358          |  |
| E0013000000000 | 300*        | 1,5          | 7,8          | 4410   | 1                  | 380             | 10         | 1,616          |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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**TE** disponible en stock / available on stock



# EOLO SE

(Cod. EE)



Tubo de PVC plastificado de color azul, con espiral de refuerzo en PVC rígido antichoque. Interno perfectamente liso. Externo corrugado. Muy flexible sobretodo a bajas temperaturas, alta resistencia mecánica. Versión antiestática (con hilo de cobre) según pedido.

- Ventilación y acondicionamiento industrial: aspiración de aire, humos y gases; aspiradores domésticos.

*Light blue plasticized PVC duct reinforced with rigid anti-shock PVC spiral. Inside smooth, outside corrugated. Flexible particularly at low temperatures, high mechanical resistance. It resists to atmospherical agents and to most chemicals. On request it can be manufactured in the antistatic version with copper wire.*

- For industrial and domestic vacuum cleaners, aerating and conditioning plants, suction of fumes and gases.

Espiral de PVC rígido anti choque / Anti-shock rigid PVC spiral

Tubo de PVC-P / Plasticized PVC hose



## Ficha técnica / Technical data

| Código         | ø int.       | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|--------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | ø Int.       | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch      | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| EE010160000000 | 16*          | 1,2          | 2,6          | 120    | 6                  | 65              | 50         | 0,037          |
| EE010190000000 | 19,1*/3/4"   | 1,2          | 2,6          | 130    | 6                  | 65              | 50         | 0,049          |
| EE010200000000 | 20*          | 1,2          | 2,6          | 140    | 6                  | 80              | 50         | 0,051          |
| EE010250000000 | 25*          | 1,2          | 2,6          | 170    | 6                  | 100             | 50         | 0,072          |
| EE010300000000 | 30*          | 1,4          | 3,0          | 250    | 6                  | 110             | 50         | 0,115          |
| EE010320000000 | 31,8*/1.1/4" | 1,4          | 3,1          | 280    | 6                  | 120             | 50         | 0,122          |
| EE010350000000 | 35*          | 1,5          | 3,2          | 300    | 5                  | 130             | 50         | 0,132          |
| EE010380000000 | 38,1*/1.1/2" | 1,5          | 3,2          | 330    | 5                  | 135             | 50         | 0,142          |
| EE010390000000 | 39*          | 1,5          | 3,2          | 340    | 5                  | 140             | 50         | 0,145          |
| EE010400000000 | 40*          | 1,5          | 3,2          | 340    | 5                  | 160             | 50         | 0,178          |
| EE010450000000 | 45*          | 1,6          | 3,4          | 420    | 5                  | 175             | 50         | 0,199          |
| EE010500000000 | 50*          | 1,6          | 3,9          | 530    | 5                  | 175             | 50         | 0,259          |
| EE010515000000 | 51,5*        | 1,6          | 3,9          | 540    | 5                  | 180             | 50         | 0,266          |
| EE010520000000 | 50,8*/2"     | 1,6          | 3,9          | 540    | 5                  | 175             | 50         | 0,263          |
| EE010550000000 | 55*          | 1,7          | 4,0          | 610    | 5                  | 190             | 50         | 0,272          |
| EE010570000000 | 57*          | 1,7          | 4,0          | 630    | 5                  | 200             | 50         | 0,374          |
| EE010600000000 | 60*          | 2,0          | 4,6          | 820    | 5                  | 220             | 50         | 0,399          |
| EE010630000000 | 63,5*/2.1/2  | 2,0          | 4,6          | 860    | 5                  | 230             | 50         | 0,419          |
| EE010650000000 | 65*          | 2,0          | 4,6          | 880    | 5                  | 250             | 50         | 0,427          |
| EE010700000000 | 70*/2.3/4"   | 2,0          | 5,2          | 990    | 5                  | 270             | 50         | 0,463          |
| EE010760000000 | 76,2*/3"     | 2,0          | 5,2          | 1070   | 5                  | 290             | 50         | 0,624          |
| EE010800000000 | 80*          | 2,0          | 5,4          | 1120   | 5                  | 350             | 30         | 0,523          |
| EE010900000000 | 90*          | 2,0          | 5,4          | 1250   | 4,5                | 400             | 30         | 0,581          |
| EE011000000000 | 100*         | 2,1          | 5,6          | 1400   | 4,5                | 400             | 30         | 0,641          |
| EE011020000000 | 102*/4"      | 2,1          | 5,6          | 1420   | 4,5                | 430             | 30         | 0,652          |
| EE011100000000 | 110*         | 2,1          | 6,2          | 1680   | 4,5                | 470             | 30         | 0,705          |
| EE011200000000 | 120*         | 2,1          | 6,3          | 1860   | 4,5                | 500             | 30         | 1,018          |
| EE011270000000 | 127*/5"      | 2,2          | 6,5          | 2070   | 4,5                | 510             | 30         | 1,075          |
| EE011300000000 | 130*         | 2,3          | 6,8          | 2270   | 4                  | 560             | 30         | 1,103          |
| EE011400000000 | 140*         | 2,3          | 7,0          | 2540   | 4                  | 600             | 20         | 1,183          |
| EE011500000000 | 151,5*       | 2,5          | 7,3          | 2820   | 4                  | 600             | 20         | 1,276          |
| EE011520000000 | 152,4*/6"    | 2,5          | 7,4          | 2880   | 4                  | 650             | 20         | 1,284          |
| EE011600000000 | 160*         | 2,7          | 8,0          | 3090   | 3,5                | 730             | 20         | 1,408          |
| EE011800000000 | 180*         | 2,7          | 8,0          | 3470   | 3,5                | 800             | 20         | 1,568          |
| EE012000000000 | 200*         | 2,7          | 8,0          | 3670   | 3,5                | 800             | 20         | 1,728          |
| EE012030000000 | 203,2*/8"    | 2,7          | 8,0          | 3730   | 3                  | 1250            | 10         | 1,754          |
| EE012500000000 | 250*         | 2,8          | 8,4          | 4890   | 7                  | 1500            | 10         | 2,134          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity





# Altas Temperaturas High Temperatures

**EOLO TERMORESISTENTE**

**EOLO HT 180°C**

**VULCANO® TPR-A**

**EOLO CLIP HYPALON**

**EOLO HT 400°C**

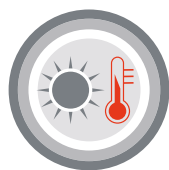
**EOLO HT 450°C**

**SILDUCT 2S**





# EOLO TERMORESISTENTE (Cod. TR)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 76-406

Tubo de color gris, realizado con tejido de poliéster recubierto de PVC autoextinguible. Espiral de refuerzo de acero incorporada entre los dos extractos. Auto-extinguible según UL 94 V0 y NFP 92 503 (M2) Compresibilidad axial 8:1.

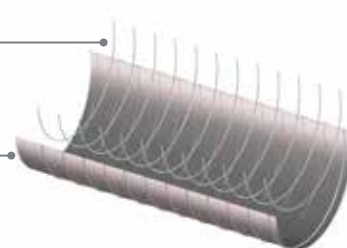
- Instalaciones de acondicionamiento civil y naval, ventilación, aspiración de humos y gases.

*Gray flexible duct made with flame resistant PVC coated polyester fabric and reinforced by steel helix welded between the two layers. The material is flame retardant, according to UL 94 V(TM)-0 and to NFP 92 503 (grade M2). Axial compressibility: 8:1.*

- Civil and naval conditioning plants, ventilation systems, suction of fumes, vapours, powders, gas.

Espiral de acero / Steel spiral reinforcement

Tejido de poliéster recubierto de PVC autoextinguible  
Flame resistant PVC coated with polyester fabric



## Ficha técnica / Technical data

| Código        | Ø int.    | Peso   | R. de curvatura | Lg. Rollo  | Vol.  |  |
|---------------|-----------|--------|-----------------|------------|-------|--|
| Code          | Ø Int.    | Weight | Bending         | Coil lgth. | Vol.  |  |
|               | mm/inch   | g/m    | mm              | m          | m³    |  |
| TR01040000000 | 40        | 115    | 20              | 10         | 0,002 |  |
| TR01045000000 | 45        | 125    | 23              | 10         | 0,002 |  |
| TR01051000000 | 51        | 135    | 26              | 10         | 0,003 |  |
| TR01055000000 | 55        | 145    | 28              | 10         | 0,003 |  |
| TR01060000000 | 60        | 160    | 30              | 10         | 0,004 |  |
| TR01063000000 | 63        | 165    | 32              | 10         | 0,004 |  |
| TR01065000000 | 65        | 170    | 33              | 10         | 0,005 |  |
| TR01070000000 | 70/2.3/4" | 165    | 35              | 10         | 0,005 |  |
| TR01073000000 | 73        | 175    | 37              | 10         | 0,006 |  |
| TR01076000000 | 76        | 180    | 38              | 10         | 0,006 |  |
| TR01080000000 | 80        | 190    | 40              | 10         | 0,007 |  |
| TR01082000000 | 82        | 195    | 41              | 10         | 0,007 |  |
| TR01090000000 | 90        | 210    | 45              | 10         | 0,009 |  |
| TR01102000000 | 102/4"    | 275    | 51              | 10         | 0,011 |  |
| TR01107000000 | 107       | 290    | 54              | 10         | 0,012 |  |
| TR01110000000 | 110       | 300    | 55              | 10         | 0,013 |  |
| TR01115000000 | 115       | 310    | 58              | 10         | 0,014 |  |
| TR01120000000 | 120       | 325    | 60              | 10         | 0,015 |  |
| TR01125000000 | 125       | 340    | 63              | 10         | 0,016 |  |
| TR01127000000 | 127/5"    | 345    | 64              | 10         | 0,017 |  |
| TR01130000000 | 130       | 350    | 65              | 10         | 0,018 |  |
| TR01140000000 | 140       | 380    | 70              | 10         | 0,021 |  |
| TR01152000000 | 152/6"    | 410    | 76              | 10         | 0,024 |  |
| TR01160000000 | 160       | 420    | 80              | 10         | 0,027 |  |
| TR01163000000 | 163       | 430    | 82              | 10         | 0,028 |  |
| TR01180000000 | 180       | 475    | 90              | 10         | 0,034 |  |
| TR01200000000 | 200       | 525    | 100             | 10         | 0,041 |  |
| TR01203000000 | 203/8"    | 535    | 102             | 10         | 0,043 |  |
| TR01228000000 | 228       | 600    | 114             | 10         | 0,054 |  |
| TR01230000000 | 230       | 600    | 115             | 10         | 0,055 |  |
| TR01254000000 | 254/10"   | 840    | 127             | 10         | 0,067 |  |
| TR01279000000 | 279       | 920    | 140             | 10         | 0,080 |  |
| TR01305000000 | 305/12"   | 1005   | 153             | 10         | 0,096 |  |
| TR01310000000 | 310       | 1020   | 155             | 10         | 0,099 |  |
| TR01315000000 | 315       | 1040   | 158             | 10         | 0,102 |  |
| TR01330000000 | 330       | 1090   | 165             | 10         | 0,112 |  |
| TR01356000000 | 356/14"   | 1175   | 178             | 10         | 0,130 |  |
| TR01406000000 | 406       | 1335   | 203             | 10         | 0,168 |  |
| TR01455000000 | 455       | 1875   | 228             | 10         | 0,211 |  |
| TR01500000000 | 500       | 2055   | 250             | 10         | 0,255 |  |

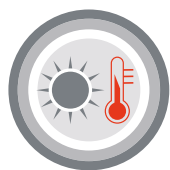
\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

disponible en stock / available on stock

# EOLO HT 180°C

(Cod. H1)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 76-406

Tubo de color gris realizado con tejido de poliéster recubierto de TPU autoextinguible. Espiral de refuerzo en acero incorporada entre los dos extractos. Auto-extinguible según UL 94 V0, NFP 92503 (M1) y NF EN 2310 /FAR25-853-a). Exento de silicona, plastificantes y ftalatos.

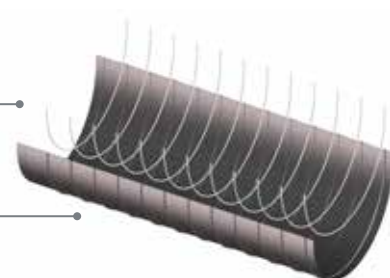
• Ventilación industrial, aspiración de gases, humos de soldadura, usado en la industria mecanica, automovilística y plástica.

*Gray duct made with flame resistant TPU coated polyester fabric and reinforced by steel helix welded between the two layers. The material is flame retardant V(TM)-0 according to UL 94, grade M1 according to NF P 92-503 and in compliance with NF EN 2310, grade FAR25-853-a. **SILICON FREE**, it is also free from phthalates and softener.*

• Civil and naval conditioning plants, ventilation systems, suction of welding fumes, vapours, powders, gas.

Espiral de acero / Steel spiral reinforcement

Tejido de poliéster recubierto de TPU autoextinguible  
Flame resistant TPU coated polyester fabric



## Ficha técnica / Technical data

| Código<br>Code | Ø Int.<br>Ø Int. | Peso<br>Weight | R. de curvatura<br>Bending | Lg. Rollo<br>Coil lgth. | Vol.<br>Vol. |
|----------------|------------------|----------------|----------------------------|-------------------------|--------------|
|                | mm/inch          | g/m            | mm                         | m                       | m³           |
| H101040000000  | 40*              | 125            | 20                         | 10                      | 0,002        |
| H101045000000  | 45*              | 140            | 23                         | 10                      | 0,002        |
| H101051000000  | 51*              | 150            | 26                         | 10                      | 0,003        |
| H101055000000  | 55*              | 165            | 28                         | 10                      | 0,003        |
| H101060000000  | 60*              | 175            | 30                         | 10                      | 0,004        |
| H101063000000  | 63*              | 185            | 32                         | 10                      | 0,004        |
| H101065000000  | 65*              | 190            | 33                         | 10                      | 0,005        |
| H101070000000  | 70*/2. 3/4"      | 185            | 35                         | 10                      | 0,005        |
| H101076000000  | 76*              | 200            | 38                         | 10                      | 0,006        |
| H101080000000  | 80*              | 210            | 40                         | 10                      | 0,007        |
| H101082000000  | 82*              | 215            | 41                         | 10                      | 0,007        |
| H101090000000  | 90*              | 240            | 45                         | 10                      | 0,009        |
| H101102000000  | 102*/4"          | 310            | 51                         | 10                      | 0,011        |
| H101107000000  | 107*             | 325            | 54                         | 10                      | 0,012        |
| H101110000000  | 110*             | 330            | 55                         | 10                      | 0,013        |
| H101115000000  | 115*             | 345            | 58                         | 10                      | 0,014        |
| H101120000000  | 120*             | 360            | 60                         | 10                      | 0,015        |
| H101127000000  | 127*/5"          | 385            | 64                         | 10                      | 0,017        |
| H101130000000  | 130*             | 390            | 65                         | 10                      | 0,018        |
| H101140000000  | 140*             | 420            | 70                         | 10                      | 0,021        |
| H101152000000  | 152*/6"          | 460            | 76                         | 10                      | 0,024        |
| H101160000000  | 160*             | 470            | 80                         | 10                      | 0,027        |
| H101163000000  | 163*             | 475            | 82                         | 10                      | 0,028        |
| H101180000000  | 180*             | 525            | 90                         | 10                      | 0,034        |
| H101203000000  | 203*/8"          | 595            | 102                        | 10                      | 0,043        |
| H101228000000  | 228*             | 665            | 114                        | 10                      | 0,054        |
| H101254000000  | 254*/10"         | 910            | 127                        | 10                      | 0,067        |
| H101279000000  | 279*             | 1000           | 140                        | 10                      | 0,080        |
| H101305000000  | 305*/12"         | 1095           | 153                        | 10                      | 0,096        |
| H101315000000  | 315*             | 1130           | 158                        | 10                      | 0,102        |
| H101330000000  | 330*             | 1180           | 165                        | 10                      | 0,112        |
| H101356000000  | 356*/14"         | 1275           | 178                        | 10                      | 0,130        |
| H101406000000  | 406*             | 1455           | 203                        | 10                      | 0,236        |
| H101500000000  | 500*             | 2015           | 250                        | 10                      | 0,357        |
| H101505000000  | 505*             | 2035           | 253                        | 10                      | 0,364        |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# VULCANO® TPR-A (Cod. VT)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 100-406

Tubo de goma termoplástica TPV de color negro y raya verde, con espiral de refuerzo de acero incorporada entre los 2 estrados. Ligero y flexible, presenta una alta resistencia a las altas temperaturas, a las substancias químicas y a la abrasión. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

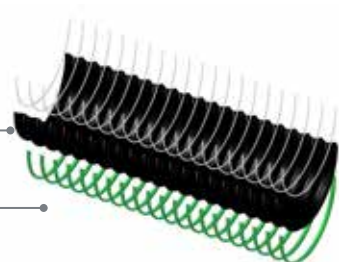
- Industria química y astilleros navales: aspiración de aire y de humos a temperaturas elevadas.

*Black hose with green stripe made in thermoplastic rubber TPV, with a steel spiral reinforcement embedded between the two layers. Light and flexible, it is extremely resistant to high temperatures, chemicals and abrasion. It can be made conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

- Suction of hot air and fumes in chemical plants and shipyards.

Espiral de acero / Steel spiral reinforcement

Tubo de goma termoplástica TPV / Thermoplastic rubber hose



## Ficha técnica / Technical data

| Código         | Ø int.     | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|------------|--------------|--------|--------------------|-----------------|------------|----------------|--|
| Code           | Ø Int.     | Min wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |  |
|                | mm/inch    | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |  |
| VT010380000000 | 38         | 0,40         | 185    | 2,0                | 30              | 20         | 0,06           |  |
| VT010400000000 | 40         | 0,40         | 195    | 2,0                | 32              | 20         | 0,07           |  |
| VT010450000000 | 45         | 0,40         | 220    | 2,0                | 36              | 20         | 0,10           |  |
| VT010510000000 | 51         | 0,40         | 245    | 2,0                | 40              | 20         | 0,11           |  |
| VT010550000000 | 55*        | 0,40         | 265    | 1,7                | 50              | 20         | 0,12           |  |
| VT010600000000 | 60         | 0,40         | 285    | 1,7                | 50              | 20         | 0,13           |  |
| VT010630000000 | 63         | 0,40         | 300    | 1,7                | 55              | 20         | 0,14           |  |
| VT010650000000 | 65*        | 0,40         | 310    | 1,7                | 56              | 20         | 0,19           |  |
| VT010700000000 | 70/2.3/4"  | 0,50         | 465    | 1,7                | 60              | 20         | 0,20           |  |
| VT010760000000 | 76         | 0,50         | 505    | 1,7                | 65              | 20         | 0,22           |  |
| VT010800000000 | 80         | 0,50         | 530    | 1,6                | 65              | 20         | 0,23           |  |
| VT010890000000 | 89*/3.1/2" | 0,50         | 585    | 1,6                | 75              | 20         | 0,28           |  |
| VT010900000000 | 90         | 0,50         | 590    | 1,6                | 75              | 20         | 0,28           |  |
| VT011020000000 | 102/4"     | 0,60         | 660    | 1,3                | 85              | 15         | 0,32           |  |
| VT011100000000 | 110        | 0,60         | 710    | 1,2                | 90              | 15         | 0,51           |  |
| VT011150000000 | 115*       | 0,60         | 740    | 1,0                | 100             | 15         | 0,53           |  |
| VT011200000000 | 120        | 0,60         | 770    | 1,0                | 100             | 15         | 0,55           |  |
| VT011270000000 | 127/5"     | 0,65         | 855    | 1,0                | 105             | 15         | 0,59           |  |
| VT011300000000 | 130        | 0,65         | 870    | 0,8                | 105             | 15         | 0,60           |  |
| VT011400000000 | 140        | 0,65         | 935    | 0,8                | 115             | 15         | 0,76           |  |
| VT011520000000 | 152/6"     | 0,65         | 1015   | 0,8                | 125             | 15         | 0,82           |  |
| VT011600000000 | 160        | 0,65         | 1070   | 0,7                | 130             | 15         | 0,87           |  |
| VT011800000000 | 180        | 0,65         | 1350   | 0,5                | 150             | 15         | 0,98           |  |
| VT012030000000 | 203/8"     | 0,65         | 1515   | 0,4                | 165             | 15         | 1,10           |  |
| VT012200000000 | 220*       | 0,65         | 1640   | 0,4                | 185             | 10         | 1,19           |  |
| VT012280000000 | 228*       | 0,65         | 1695   | 0,4                | 185             | 10         | 1,23           |  |
| VT012540000000 | 254/10"    | 0,65         | 1920   | 0,4                | 210             | 10         | 1,36           |  |
| VT012650000000 | 265*       | 0,65         | 2045   | 0,4                | 220             | 10         | 1,42           |  |
| VT012790000000 | 279*       | 0,65         | 2115   | 0,4                | 230             | 10         | 1,50           |  |
| VT013050000000 | 305/12"    | 0,65         | 2335   | 0,3                | 250             | 10         | 1,63           |  |
| VT013560000000 | 356*/14"   | 0,65         | 2715   | 0,3                | 300             | 10         | 2,96           |  |
| VT014060000000 | 406*       | 0,65         | 3170   | 0,3                | 350             | 10         | 3,36           |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

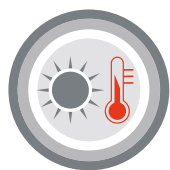
Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

disponible en stock / available on stock



# EOLO CLIP HYPALON

(Cod. EY)



Tubo de color gris, realizado con tejido de poliéster recubierto de Hypalon. Espiral de refuerzo de acero galvanizado, incorporada entre los dos extractos. Compresibilidad axial 4:1. Tubo muy flexible, resistente a vibraciones, aceites minerales, sustancias alcalinas, ácidos y a muchos productos químicos. Resistente a la deformación. Difícilmente inflamable.

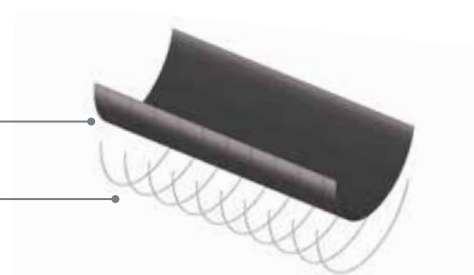
- Industria química: aspiración de humos y vapores hasta 170°C

*Dark gray Hypalon® coated PES-fabric with external galvanized steel spiral. Compressible 4:1. Very flexible, resistant to vibrations, mineral oils, chemicals (alkali and acids) and to several chemical products. Crush proof. Hardly inflammable.*

- *Suction and delivery of chemical vapours and fumes up to 170°C. Suitable to be installed in narrow spaces and where special bending radius is required*

Tejido de poliéster recubierto de Hypalon / Hypalon®coated PES-fabric

Espiral de refuerzo de acero galvanizado / Galvanized steel spiral



## Ficha técnica / Technical data

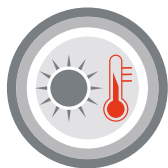
| Código         | Ø Int.     | Peso   | P.T.  | Vacio              | R. de curvatura | Lg. Rollo  |
|----------------|------------|--------|-------|--------------------|-----------------|------------|
| Code           | Ø Int.     | Weight | W.P.  | Vac.               | Bending         | Coil lgth. |
|                | mm/inch    | g/m    | [bar] | m H <sub>2</sub> O | mm              | m          |
| EY010500000000 | 50*        | 400    | 0,900 | 4,08               | 30              | 6          |
| EY010600000000 | 60*        | 500    | 0,780 | 2,83               | 36              | 6          |
| EY010650000000 | 65*        | 500    | 0,680 | 2,42               | 39              | 6          |
| EY010700000000 | 70*/2.3/4" | 500    | 0,670 | 2,08               | 42              | 6          |
| EY010750000000 | 75*        | 600    | 0,620 | 1,82               | 45              | 6          |
| EY010800000000 | 80*        | 600    | 0,610 | 1,59               | 48              | 6          |
| EY010900000000 | 90*        | 600    | 0,560 | 1,25               | 54              | 6          |
| EY011000000000 | 100*       | 600    | 0,510 | 1,02               | 60              | 6          |
| EY011100000000 | 110*       | 700    | 0,480 | 0,85               | 66              | 6          |
| EY011200000000 | 120*       | 700    | 0,360 | 0,71               | 72              | 6          |
| EY011250000000 | 125*       | 800    | 0,330 | 0,65               | 75              | 6          |
| EY011300000000 | 130*       | 800    | 0,280 | 0,60               | 78              | 6          |
| EY011400000000 | 140*       | 800    | 0,250 | 0,52               | 84              | 6          |
| EY011500000000 | 150*       | 900    | 0,220 | 0,45               | 90              | 6          |
| EY011600000000 | 160*       | 900    | 0,210 | 0,40               | 96              | 6          |
| EY011700000000 | 170*       | 900    | 0,190 | 0,36               | 102             | 6          |
| EY011750000000 | 175*       | 1000   | 0,185 | 0,34               | 105             | 6          |
| EY011800000000 | 180*       | 1000   | 0,172 | 0,32               | 108             | 6          |
| EY012000000000 | 200*       | 1200   | 0,148 | 0,25               | 120             | 6          |
| EY012150000000 | 215*       | 1300   | 0,128 | 0,22               | 129             | 6          |
| EY012250000000 | 225*       | 1400   | 0,115 | 0,20               | 135             | 6          |
| EY012500000000 | 250*       | 1600   | 0,100 | 0,16               | 175             | 6          |
| EY012750000000 | 275*       | 1900   | 0,080 | 0,13               | 193             | 6          |
| EY013000000000 | 300*       | 2100   | 0,070 | 0,11               | 210             | 6          |
| EY013150000000 | 315*       | 2100   | 0,062 | 0,10               | 221             | 6          |
| EY013250000000 | 325*       | 2200   | 0,059 | 0,10               | 228             | 6          |
| EY013500000000 | 350*       | 2500   | 0,056 | 0,08               | 245             | 6          |
| EY013750000000 | 375*       | 2900   | 0,050 | 0,07               | 263             | 6          |
| EY014000000000 | 400*       | 3100   | 0,047 | 0,06               | 280             | 6          |
| EY014500000000 | 450*       | 3600   | 0,045 | 0,05               | 360             | 6          |
| EY015000000000 | 500*       | 4100   | 0,043 | 0,04               | 400             | 6          |
| EY016000000000 | 600*       | 5100   | 0,039 | 0,03               | 480             | 6          |
| EY017000000000 | 700*       | 6000   | 0,031 | 0,02               | 560             | 6          |
| EY018000000000 | 800*       | 6900   | 0,022 | 0,02               | 640             | 6          |
| EY019000000000 | 900*       | 7800   | 0,016 | 0,01               | 720             | 6          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# EOLO HT 400°C (Cod. H4)

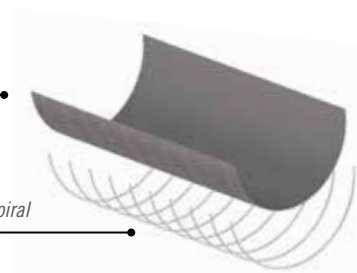


**Tubo de color gris en tejido de fibra de vidrio reforzado con acero. “Espiral de clip” de acero galvanizado.**  
Resistente a altas temperaturas hasta a 400°C. Difícilmente inflamable. Buena compresibilidad axial 3:1.  
• Aspiración de gases, vapores, humos de soldadura, gases de escape de hornos, polvos y fibras.

**Special coated glass fabric duct reinforced with stainless steel wire Galvanized steel clamp profile.**  
Resistant to high temperature up to 400°C. Flexible and hardly inflammable. Good axial compressibility 3:1.  
• Extraction of vapors and exhaust smokes, welding gasses, furnace exhaust, dust and fibres.

Tubo en tejido de fibra de vidrio reforzado con acero  
*Coated glass fabric duct*

Espiral de refuerzo de acero galvanizado / *Galvanized steel spiral*



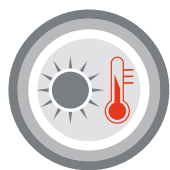
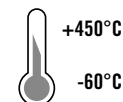
## Ficha técnica / Technical data

| Código        | Ø Int.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  |
|---------------|------------|--------|--------------------|-----------------|------------|
| Code          | Ø Int.     | Weight | Vac.               | Bending         | Coil lgth. |
|               | mm/inch    | g/m    | m H <sub>2</sub> O | mm              | m          |
| H401050000000 | 50*        | 400    | 3,26               | 30              | 6          |
| H401060000000 | 60*        | 500    | 2,24               | 36              | 6          |
| H401065000000 | 65*        | 500    | 1,94               | 39              | 6          |
| H401070000000 | 70*/2.3/4" | 500    | 1,63               | 42              | 6          |
| H401075000000 | 75*        | 600    | 1,43               | 45              | 6          |
| H401080000000 | 80*        | 600    | 1,27               | 48              | 6          |
| H401090000000 | 90*        | 600    | 1,02               | 54              | 6          |
| H401100000000 | 100*       | 600    | 0,82               | 60              | 6          |
| H401110000000 | 110*       | 700    | 0,67               | 66              | 6          |
| H401120000000 | 120*       | 700    | 0,57               | 72              | 6          |
| H401125000000 | 125*       | 800    | 0,51               | 75              | 6          |
| H401130000000 | 130*       | 800    | 0,48               | 78              | 6          |
| H401140000000 | 140*       | 800    | 0,42               | 84              | 6          |
| H401150000000 | 150*       | 900    | 0,37               | 90              | 6          |
| H401160000000 | 160*       | 900    | 0,32               | 96              | 6          |
| H401170000000 | 170*       | 900    | 0,29               | 102             | 6          |
| H401175000000 | 175*       | 1000   | 0,27               | 105             | 6          |
| H401180000000 | 180*       | 1000   | 0,25               | 108             | 6          |
| H401200000000 | 200*       | 1200   | 0,20               | 120             | 6          |
| H401215000000 | 215*       | 1300   | 0,18               | 129             | 6          |
| H401225000000 | 225*       | 1400   | 0,16               | 135             | 6          |
| H401250000000 | 250*       | 1600   | 0,13               | 175             | 6          |
| H401275000000 | 275*       | 1900   | 0,11               | 193             | 6          |
| H401300000000 | 300*       | 2100   | 0,09               | 210             | 6          |
| H401315000000 | 315*       | 2100   | 0,08               | 221             | 6          |
| H401325000000 | 325*       | 2200   | 0,08               | 228             | 6          |
| H401350000000 | 350*       | 2500   | 0,07               | 245             | 6          |
| H401375000000 | 375*       | 2900   | 0,06               | 263             | 6          |
| H401400000000 | 400*       | 3100   | 0,05               | 280             | 6          |
| H401450000000 | 450*       | 3600   | 0,04               | 360             | 6          |
| H401500000000 | 500*       | 4100   | 0,03               | 400             | 6          |
| H401600000000 | 600*       | 5100   | 0,02               | 480             | 6          |
| H401700000000 | 700*       | 6000   | 0,02               | 560             | 6          |
| H401800000000 | 800*       | 6900   | 0,01               | 640             | 6          |
| H401900000000 | 900*       | 7800   | 0,01               | 720             | 6          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# EOLO HT 450°C (Cod. H5)



Tubo de color gris con doble extracto, revestimiento en tejido de fibra de vidrio recubierto de silicona, interior de vidrio. "Espiral de clip" en acero galvanizado. Resistente a altas temperaturas con picos de hasta 550 °C y difícilmente inflamable. Buena compresibilidad axial hasta 6:1.

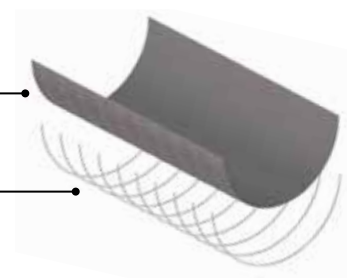
- Instalaciones de extracción de humos de soldadura, vapores, gases de escape de hornos, polvos y fibras, aviación e industria de defensa

*2 ply, special high temperature silicone coated glass fabric outside, raw glass inside, reinforced with an external galvanized steel "Clamp profile". Resistant to high temperature peaks up to 550°C. Hardly inflammable. Good axial compressibility 6:1.*

- Suction and blowing of smokes, vapours, welding gasses, furnace exhaust, dust and fibres; iron and steel production; heating plants; aerospace and defence industry

Tejido de fibra de vidrio recubierto de silicona  
*Silicone coated glass fabric*

Espiral de refuerzo de acero galvanizado / *Galvanized steel spiral*



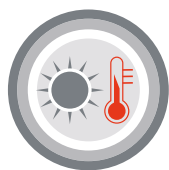
## Ficha técnica / Technical data

| Código        | Ø Int.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  |
|---------------|------------|--------|--------------------|-----------------|------------|
| Code          | Ø Int.     | Weight | Vac.               | Bending         | Coil lgth. |
|               | mm/inch    | g/m    | m H <sub>2</sub> O | mm              | m          |
| H501050000000 | 50*        | 600    | 3,26               | 30              | 6          |
| H501060000000 | 60*        | 700    | 2,24               | 36              | 6          |
| H501065000000 | 65*        | 800    | 1,94               | 39              | 6          |
| H501070000000 | 70*/2.3/4" | 900    | 1,63               | 42              | 6          |
| H501075000000 | 75*        | 1000   | 1,43               | 45              | 6          |
| H501080000000 | 80*        | 1000   | 1,27               | 48              | 6          |
| H501090000000 | 90*        | 1200   | 1,02               | 54              | 6          |
| H501100000000 | 100*       | 1300   | 0,82               | 60              | 6          |
| H501110000000 | 110*       | 1300   | 0,67               | 66              | 6          |
| H501120000000 | 120*       | 1400   | 0,57               | 72              | 6          |
| H501125000000 | 125*       | 1400   | 0,51               | 75              | 6          |
| H501130000000 | 130*       | 1600   | 0,48               | 78              | 6          |
| H501140000000 | 140*       | 1600   | 0,42               | 84              | 6          |
| H501150000000 | 150*       | 1800   | 0,37               | 90              | 6          |
| H501160000000 | 160*       | 1800   | 0,32               | 96              | 6          |
| H501170000000 | 170*       | 2000   | 0,29               | 102             | 6          |
| H501175000000 | 175*       | 2100   | 0,27               | 105             | 6          |
| H501180000000 | 180*       | 2100   | 0,25               | 108             | 6          |
| H501200000000 | 200*       | 2300   | 0,20               | 120             | 6          |
| H501215000000 | 215*       | 2400   | 0,18               | 129             | 6          |
| H501225000000 | 225*       | 2400   | 0,16               | 135             | 6          |
| H501250000000 | 250*       | 2600   | 0,13               | 175             | 6          |
| H501275000000 | 275*       | 2700   | 0,11               | 193             | 6          |
| H501300000000 | 300*       | 2750   | 0,09               | 210             | 6          |
| H501315000000 | 315*       | 2800   | 0,08               | 221             | 6          |
| H501325000000 | 325*       | 2900   | 0,08               | 228             | 6          |
| H501350000000 | 350*       | 3050   | 0,07               | 245             | 6          |
| H501375000000 | 375*       | 3200   | 0,06               | 263             | 6          |
| H501400000000 | 400*       | 3400   | 0,05               | 280             | 6          |
| H501450000000 | 450*       | 4000   | 0,04               | 360             | 6          |
| H501500000000 | 500*       | 4500   | 0,03               | 400             | 6          |
| H501600000000 | 600*       | 5600   | 0,02               | 480             | 6          |
| H501700000000 | 700*       | 6600   | 0,02               | 560             | 6          |
| H501800000000 | 800*       | 7600   | 0,01               | 640             | 6          |
| H501900000000 | 900*       | 8600   | 0,01               | 720             | 6          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# SILDUCT 2S (Cod. P435)



**Tubo flexible de color rojo, realizado con un doble extracto de tejido de fibra de vidrio recubierto de silicona; espiral incorporada de hilo de acero armónico y doble cordón externo de fibra de vidrio.**

• Aspiración y ventilación industrial. Aspiración de gases y humos de soldadura. Usado en la industria mecánica, automovilística y plástica.

*Red flexible hose made of two plies of silicone coated glass fabric, with an embedded bronze plated steel wire helix. Double outer glass cord.*

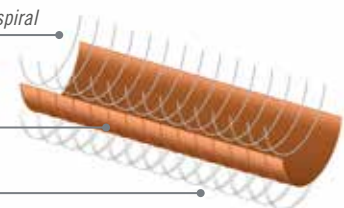
• *Extraction of exhaust gas and welding fumes; industrial ventilation, automotive and plastic industries.*

Espiral incorporada de hilo de acero galvanizado / Galvanized steel spiral

Doble extracto de tejido de fibra de vidrio recubierto de silicona

*Two plies of silicone coated glass fabric*

Doble cordón externo de fibra de vidrio / Double outer glass cord



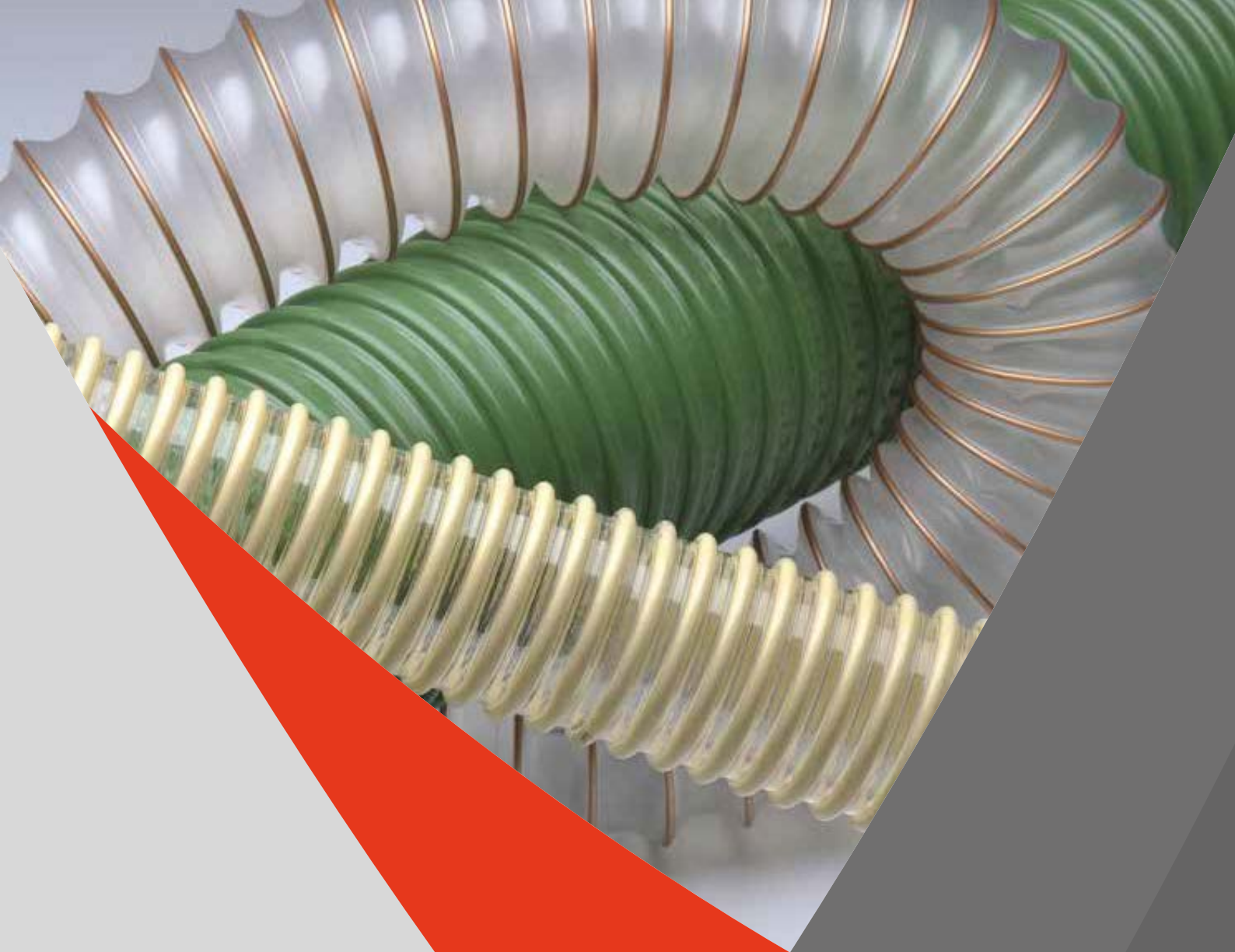
## Ficha técnica / Technical data

| Código         | Ø Int.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  |
|----------------|------------|--------|--------------------|-----------------|------------|
| Code           | Ø Int.     | Weight | Vac.               | Bending         | Coil lgth. |
|                | mm/inch    | g/m    | m H <sub>2</sub> O | mm              | m          |
| P4350130000000 | 13*        | 160    | 6,53               | 15              | 4          |
| P4350190000000 | 19*        | 190    | 6,53               | 15              | 4          |
| P4350260000000 | 26*        | 220    | 6,53               | 15              | 4          |
| P4350300000000 | 30*        | 250    | 6,53               | 15              | 4          |
| P4350320000000 | 32*        | 260    | 6,53               | 16              | 4          |
| P4350380000000 | 38*        | 310    | 6,02               | 18              | 4          |
| P4350410000000 | 41*        | 320    | 6,02               | 19              | 4          |
| P4350420000000 | 42*        | 320    | 6,02               | 19              | 4          |
| P4350440000000 | 44*        | 340    | 5,61               | 21              | 4          |
| P4350450000000 | 45*        | 340    | 5,61               | 21              | 4          |
| P4350510000000 | 51*        | 360    | 5,20               | 24              | 4          |
| P4350550000000 | 55*        | 420    | 4,89               | 27              | 4          |
| P4350570000000 | 57*        | 430    | 4,89               | 28              | 4          |
| P4350600000000 | 60*        | 470    | 4,79               | 31              | 4          |
| P4350630000000 | 63*        | 490    | 4,79               | 31              | 4          |
| P4350640000000 | 64*        | 490    | 4,79               | 31              | 4          |
| P4350650000000 | 65*        | 500    | 4,79               | 31              | 4          |
| P4350700000000 | 70*/2.3/4" | 530    | 4,38               | 35              | 4          |
| P4350760000000 | 76*        | 580    | 4,28               | 38              | 4          |
| P4350800000000 | 80*        | 620    | 4,18               | 40              | 4          |
| P4350830000000 | 83*        | 640    | 4,08               | 42              | 4          |
| P4350900000000 | 90*        | 690    | 3,98               | 44              | 4          |
| P4350950000000 | 95*        | 730    | 3,67               | 48              | 4          |
| P4351020000000 | 102*/4"    | 770    | 3,47               | 52              | 4          |
| P4351080000000 | 108*       | 830    | 3,06               | 55              | 4          |
| P4351100000000 | 110*       | 850    | 2,96               | 57              | 4          |
| P4351140000000 | 114*       | 890    | 2,86               | 57              | 4          |
| P4351200000000 | 120*       | 940    | 2,86               | 61              | 4          |
| P4351270000000 | 127*/5"    | 1000   | 2,55               | 64              | 4          |
| P4351300000000 | 130*       | 1020   | 2,35               | 65              | 4          |
| P4351400000000 | 140*       | 1110   | 1,94               | 70              | 4          |
| P4351520000000 | 152*/6"    | 1200   | 1,73               | 75              | 4          |
| P4351600000000 | 160*       | 1280   | 1,53               | 80              | 4          |
| P4351650000000 | 165*       | 1320   | 1,43               | 83              | 4          |
| P4351800000000 | 180*       | 1480   | 1,22               | 90              | 4          |
| P4352030000000 | 203*/8"    | 1650   | 0,92               | 101             | 4          |
| P4352290000000 | 229*/9"    | 1900   | 0,82               | 125             | 4          |
| P4352540000000 | 254*/10"   | 2140   | 0,71               | 150             | 4          |
| P4353050000000 | 305*/12"   | 2580   | 0,41               | 210             | 4          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# Antillama Flame Retardant

**VULCANO® AF PLUS**

**VULCANO® 09 AF**

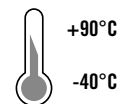
**VULCANO® PVC AF**

**EOLO PU AF**

**EOLO PVC AF**



# VULCANO® AF PLUS (Cod. UF 07)



**NEW !**  
**DIN 4102-B1**

**Tubo translucido de TPU a base de éter, con espiral de refuerzo de acero recubierta de TPU de alta adhesión de color cobre.** Realizado con un TPU especial dotado de características combinadas, que convierten el material de la pared en antiestático permanente ( $R < 10^9$  Ohm/metro), resistente a los rayos UV, a los microbios e hidrolítico. El TPU especial, es auto-extinguible según la **UL 94-V0** y el tubo es auto-extinguible según el Reglamento alemán **DIN 4102-B1**. El espesor de la pared es constante de 0,5 mm. Flexible y con óptima resistencia a la abrasión. Comprimido (5:1).

Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

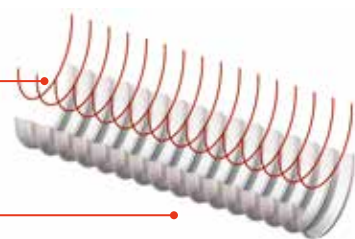
- Industria de la madera, pequeños aspiradores industriales, plantas de aspiración ligera de material abrasivo, como faja de protección.

*Translucent ether based TPU hose reinforced with a copper colored TPU coated steel spiral. It is made by a special TPU that combines different properties which make the wall material **permanent antistatic** ( $R < 10^9$  Ohm/m); resistant to microbes and Hydrolysis, as well as to UV. The special TPU is **flame retardant**, in accordance with **UL 94-V0**; the hose is as well flame retardant, according to the German standard **DIN 4102-B1**. Constant wall thickness of 0,5 mm for the whole diameter range. Light and flexible, it is suitable for applications where a good abrasion resistance is required, especially in the woodworking industry. Compressible (5:1). The hose can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

- Suction of wood shavings and sawdust, in sawmills and woodworking plants; small vacuum cleaning and light suction plants. Used as protection sleeve.



Espiral de acero cobreado recubierta de TPU  
TPU copper coated steel spiral



TPU a base de éter autoextinguible / Ether based TPU

## Ficha técnica / Technical data

| Código         | Ø Int.   | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo   | Vol.           |
|----------------|----------|--------------|--------|--------------------|-----------------|-------------|----------------|
| Code           | Ø Int.   | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.  | Vol.           |
|                | mm/inch  | mm           | g/m    | m H <sub>2</sub> O | mm              | m           | m <sup>3</sup> |
| UF070250000000 | 25       | 0,50         | 140    | 2,00               | 17              | 20          | 0,05           |
| UF070320000000 | 32       | 0,50         | 175    | 2,00               | 21              | 20          | 0,06           |
| UF070380000000 | 38*      | 0,50         | 185    | 2,00               | 25              | 20          | 0,09           |
| UF070400000000 | 40       | 0,50         | 195    | 2,00               | 27              | 20          | 0,09           |
| UF070510000000 | 51       | 0,50         | 270    | 2,00               | 34              | 20          | 0,11           |
| UF070600000000 | 60*      | 0,50         | 310    | 1,70               | 40              | 20          | 0,13           |
| UF070630000000 | 63*      | 0,50         | 325    | 1,70               | 42              | 20          | 0,19           |
| UF070650000000 | 65*      | 0,50         | 335    | 1,70               | 43              | 20          | 0,19           |
| UF070760000000 | 76       | 0,50         | 385    | 1,70               | 51              | 20          | 0,22           |
| UF070800000000 | 80*      | 0,50         | 405    | 1,60               | 53              | 20          | 0,23           |
| UF070900000000 | 90*      | 0,50         | 450    | 1,60               | 60              | 20          | 0,29           |
| UF071000000000 | 100*     | 0,50         | 495    | 1,30               | 67              | 20          | 0,48           |
| UF071020000000 | 102/4"   | 0,50         | 500    | 1,30               | 68              | 20          | 0,49           |
| UF071100000000 | 110*     | 0,50         | 540    | 1,20               | 73              | 20          | 0,52           |
| UF071200000000 | 120*     | 0,50         | 585    | 1,00               | 80              | 15          | 0,38           |
| UF071270000000 | 127*/5"  | 0,50         | 615    | 1,00               | 85              | 15          | 0,40           |
| UF071300000000 | 130*     | 0,50         | 630    | 0,80               | 87              | 15          | 0,41           |
| UF071400000000 | 140*     | 0,50         | 810    | 0,80               | 93              | 15          | 0,67           |
| UF071520000000 | 152*/6"  | 0,50         | 875    | 0,80               | 101             | 15          | 0,72           |
| UF071600000000 | 160*     | 0,50         | 915    | 0,70               | 107             | 15          | 0,76           |
| UF072030000000 | 203*/8"  | 0,50         | 1150   | 0,40               | 135             | 15          | 1,12           |
| UF072540000000 | 254*/10" | 0,50         | 1425   | 0,40               | 169             | 10 m compr. | 0,160          |
| UF073050000000 | 305*/12" | 0,50         | 1700   | 0,30               | 153             | 10 m compr. | 0,227          |
| UF074060000000 | 406*     | 0,50         | 2470   | 0,30               | 203             | 10 m compr. | 0,390          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# VULCANO® 09 AF (Cod. U9 01)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 76-400

**Tubo translúcido de TPU a base de éter, con espiral de refuerzo de acero recubierta de TPU de alta adhesión de color cobre.** Realizado con un TPU especial dotado de características combinadas, que convierten el material de la pared en antiestático permanente ( $10^9$  Ohm/metro), resistente a los rayos UV, a los microbios e hidrolítico. El TPU especial, es auto-extinguible según la UL 94-V0 y el tubo es auto-extinguible según el Reglamento alemán DIN 4102-B1. El espesor de la pared es constante de 0,9 mm. Flexible y con óptima resistencia a la abrasión. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

• Industria de la madera, pequeños aspiradores industriales, plantas de aspiración ligera de material abrasivo, como faja de protección.

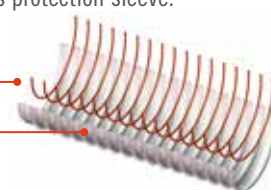
**Translucent ether based TPU hose reinforced with a copper colored TPU coated steel spiral.** It is made by a special TPU that combines different properties which make the wall material permanent antistatic ( $R < 10^9$  Ohm/m); resistant to microbes and Hydrolysis, as well as to UV. The special TPU is flame retardant in accordance with UL 94-V0; the hose is as well flame retardant, according to the German standard DIN 4102-B1. Constant wall thickness of 0,9 mm for the whole diameter range. Light and flexible, it is suitable for applications where a good abrasion resistance is required, especially in the woodworking industry. The hose can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.

• Suction of wood shavings and sawdust, in sawmills and woodworking plants. Used as protection sleeve.

Espiral de acero cobreado recubierta de TPU

TPU copper coated steel spiral

TPU a base de éter autoextinguible / Ether based TPU



## Ficha técnica / Technical data

| Codice         | Ø Int.     | Min esp.     | Peso   | Vacio. | R. de curvatura | Lg. Rollo                     | Vol. | Abrazaderas doble puente W2 |
|----------------|------------|--------------|--------|--------|-----------------|-------------------------------|------|-----------------------------|
| Code           | Ø Int.     | Min wall th. | Weight | Vac.   | Bending         | Coil lgth.                    | Vol. | Double bridge W2            |
|                | mm/inch    | mm           | g/m    | mH.0   | mm              | m                             | m³   |                             |
| U9010250000000 | 25*        | 0,90         | 200    | 5,0    | 30              | 20                            | 0,04 | -                           |
| U9010300000000 | 30*        | 0,90         | 245    | 5,0    | 35              | 20                            | 0,05 | -                           |
| U9010320000000 | 32*        | 0,90         | 260    | 5,0    | 35              | 20                            | 0,05 | -                           |
| U9010350000000 | 35*        | 0,90         | 285    | 5,0    | 40              | 20                            | 0,06 | -                           |
| U9010380000000 | 38*        | 0,90         | 270    | 5,0    | 40              | 20                            | 0,06 | -                           |
| U9010400000000 | 40*        | 0,90         | 285    | 5,0    | 50              | 20                            | 0,07 | -                           |
| U9010450000000 | 45*        | 0,90         | 365    | 5,0    | 50              | 20                            | 0,09 | -                           |
| U9010500000000 | 50*        | 0,90         | 405    | 4,0    | 60              | 20                            | 0,10 | -                           |
| U9010510000000 | 51*        | 0,90         | 410    | 4,0    | 60              | 20                            | 0,10 | -                           |
| U9010600000000 | 60*        | 0,90         | 480    | 3,0    | 70              | 20                            | 0,13 | -                           |
| U9010630000000 | 63*        | 0,90         | 500    | 3,0    | 70              | 20                            | 0,13 | -                           |
| U9010650000000 | 65*        | 0,90         | 515    | 3,0    | 70              | 20                            | 0,18 | -                           |
| U9010700000000 | 70*/2.3/4" | 0,90         | 640    | 3,0    | 80              | 20                            | 0,20 | -                           |
| U9010750000000 | 75*        | 0,90         | 685    | 3,0    | 90              | 20                            | 0,22 | -                           |
| U9010760000000 | 76*        | 0,90         | 690    | 3,0    | 90              | 20                            | 0,24 | -                           |
| U9010800000000 | 80*        | 0,90         | 725    | 3,0    | 90              | 20                            | 0,26 | F2 W2 076.0 090.0           |
| U9010900000000 | 90*        | 0,90         | 810    | 2,5    | 100             | 20                            | 0,29 | -                           |
| U9011000000000 | 100*       | 0,90         | 895    | 2,0    | 120             | 15                            | 0,31 | -                           |
| U9011020000000 | 102*/4"    | 0,90         | 915    | 2,0    | 120             | 15                            | 0,32 | -                           |
| U9011100000000 | 110*       | 0,90         | 980    | 2,0    | 130             | 15                            | 0,34 | F2 W2 100.0 127.0           |
| U9011200000000 | 120*       | 0,90         | 1065   | 1,5    | 140             | 15                            | 0,37 | -                           |
| U9011270000000 | 12*/7/5"   | 0,90         | 1310   | 1,5    | 150             | 15                            | 0,39 | -                           |
| U9011300000000 | 130*       | 0,90         | 1340   | 1,5    | 150             | 15                            | 0,40 | -                           |
| U9011400000000 | 140*       | 0,90         | 1440   | 1,0    | 160             | 15                            | 0,64 | -                           |
| U9011500000000 | 150 *      | 0,90         | 1540   | 1,0    | 170             | 15                            | 0,69 | F2 W2 130.0 190.0           |
| U9011520000000 | 152*/6"    | 0,90         | 1560   | 1,0    | 170             | 15                            | 0,70 | -                           |
| U9011600000000 | 160*       | 0,90         | 1640   | 1,0    | 180             | 15                            | 0,73 | -                           |
| U9011800000000 | 180*       | 0,90         | 1640   | 0,5    | 210             | 15                            | 0,97 | -                           |
| U9012000000000 | 200*       | 0,90         | 1815   | 0,5    | 230             | 15                            | 1,08 | F2 W2 200.0 230.0           |
| U9012030000000 | 203*/8"    | 0,90         | 1840   | 0,5    | 230             | 15                            | 1,09 | -                           |
| U9012200000000 | 220*       | 0,90         | 1990   | 0,3    | 260             | 10                            | 1,18 | -                           |
| U9012280000000 | 228*       | 0,90         | 2060   | 0,3    | 260             | 10                            | 1,22 | -                           |
| U9012500000000 | 250*       | 0,90         | 2255   | 0,3    | 290             | 10                            | 1,33 | -                           |
| U9012540000000 | 254*/10"   | 0,90         | 2290   | 0,3    | 290             | 10                            | 1,35 | -                           |
| U9012650000000 | 265*       | 0,90         | 2610   | 0,3    | 300             | 10                            | 1,41 | F2 W2 250.0 330.0           |
| U9012790000000 | 279 *      | 0,90         | 2745   | 0,2    | 320             | 10                            | 1,48 | -                           |
| U9013000000000 | 300*       | 0,90         | 2950   | 0,2    | 350             | 10                            | 1,59 | -                           |
| U9013050000000 | 305*/12"   | 0,90         | 3000   | 0,2    | 350             | 10                            | 1,61 | -                           |
| U9013150000000 | 315*       | 0,90         | 3095   | 0,2    | 350             | 10                            | 1,66 | -                           |
| U9013500000000 | 350*       | 0,90         | 3925   | 0,1    | 410             | Pezz. su richiesta/On request | -    | -                           |
| U9013560000000 | 356*/14"   | 0,90         | 3990   | 0,1    | 410             | Pezz. su richiesta/On request | -    | F2 W2 350.0 410.0           |
| U9014000000000 | 400*       | 0,90         | 4475   | 0,1    | 470             | Pezz. su richiesta/On request | -    | -                           |
| U9014060000000 | 406*       | 0,90         | 4540   | 0,1    | 470             | Pezz. su richiesta/On request | -    | -                           |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# VULCANO® PVC AF (Cod. VP 04)



**Tubo de PVC de color negro, con espiral de refuerzo de acero.** Interno y externo ligeramente corrugado. El tubo especial, es auto-extinguible según la UL 94-V0. El espesor de la pared es constante de 0,6 mm. Extremadamente flexible, ofrece radios de curvatura extremos. Resistente a los rayos UV, a los agentes atmosféricos y a numerosas sustancias químicas. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Ventilación y acondicionamiento industrial: aspiración de aire, humos y gases.

*Black PVC-P hose, reinforced with a steel spiral. Slightly corrugated inside and outside. This hose is flame retardant according to UL 94 V0. Constant wall thickness 0,6 mm.*

*Thanks to its high mechanical features, it can be used in many applications, especially when good dynamic properties are required: flexible, light, easy to handle, really good bending.*

*Good resistance to most chemicals, ozone, UV rays, weather conditions and ageing. The hose can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

- Ventilation and air conditioning systems, fumes and dust extraction, suction of vapours and gases.



Espiral de acero / Steel spiral

Tubo de PVC-P / PVC hose



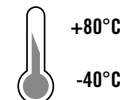
## Ficha técnica / Technical data

| Código         | Ø Int.  | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|---------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.  | Min wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| VP040760000000 | 76*     | 0,6          | 570    | 1,7                | 65              | 20         | 0,22           |
| VP041020000000 | 102*/4" | 0,6          | 725    | 1,3                | 90              | 15         | 0,33           |
| VP041100000000 | 110*    | 0,6          | 780    | 1,3                | 95              | 15         | 0,35           |
| VP041270000000 | 127*/5" | 0,6          | 885    | 1                  | 110             | 15         | 0,40           |
| VP041500000000 | 150*    | 0,6          | 1045   | 0,8                | 130             | 15         | 0,71           |
| VP042030000000 | 203*/8" | 0,6          | 1475   | 0,4                | 175             | 15         | 1,11           |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# EOLO PU AF (Cod. FF)



**Tubo transparente de TPU a base de éster, auto-extinguible según UL 94 V2, con espiral de refuerzo de PVC rígido antichoque de color marfil;** superficie interna perfectamente lisa; muy ligero y flexible, presenta una notable resistencia a la abrasión y a la flexión. Versión antiestática (con hilo y cobre) según pedido.

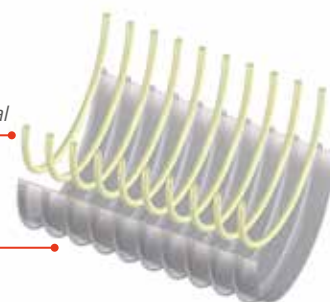
- Aspiración de polvo, grava, gránulos, y substancias abrasivas de la industria en general y allí donde sean necesarias propiedades autoextinguibles.

*Transparent ester based TPU hose, flame retardant according to UL 94 V2, reinforced with ivory anti-shock rigid PVC spiral; completely smooth inside, it's very flexible and light. Really good resistance to abrasion and torsion. Antistatic version with copper wire on request.*

- Suction of abrasive media such as powders, granulates, wood shavings and dust and where good self-extinguishing properties are required.

Espiral de PVC rígido anti choque / Anti-shock rigid PVC spiral

TPU a base de éster autoextinguible  
Flame retardant ester based TPU hose



## Ficha técnica / Technical data

| Código         | Ø Int.       | Min esp.     | Spess. Max.  | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|--------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch      | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| FF010190000000 | 19,1*/3/4"   | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,022          |
| FF010200000000 | 20*          | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,027          |
| FF010300000000 | 30*          | 0,4          | 2,8          | 160    | 2,5                | 35              | 20         | 0,051          |
| FF010520000000 | 50,8*/2"     | 0,5          | 3,4          | 330    | 2                  | 70              | 20         | 0,111          |
| FF010600000000 | 60*          | 0,5          | 3,8          | 460    | 1,6                | 80              | 20         | 0,130          |
| FF010630000000 | 63,5*/2.1/2" | 0,5          | 3,9          | 510    | 1,6                | 80              | 20         | 0,183          |
| FF010760000000 | 76,2*/3"     | 0,6          | 4,2          | 600    | 1,6                | 100             | 30         | 0,365          |
| FF010800000000 | 80*          | 0,6          | 4,5          | 640    | 1,6                | 110             | 30         | 0,384          |
| FF010900000000 | 90*          | 0,6          | 4,6          | 740    | 1,4                | 125             | 30         | 0,429          |
| FF011600000000 | 160*         | 0,7          | 7,2          | 1920   | 0,7                | 220             | 20         | 0,893          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# EOLO PVC AF (Cod. EF 75)



**Tubo en PVC plastificado en color verde, con adición de aditivos auto-extinguible y espiral de refuerzo en PVC rígido antichoque.** El material especial es auto-extinguible según la UL 94-V0. Superficie interna perfectamente lisa, externa corrugada. Muy ligero y flexible. Versión antiestática(con hilo de cobre) según pedido.

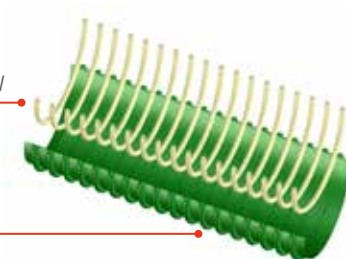
- Ventilación y acondicionamiento industrial: aspiración de aire, humos y gases; industria naval.

*Green flame retardant plasticized PVC hose reinforced by an anti-shock rigid PVC spiral. Inside perfectly smooth, outside corrugated. Very light and flexible. The material is flame retardant according to UL 94 V0. Antistatic version with copper wire available on request.*

- Suction of air, fumes and gas; industrial ventilation systems and air conditioning plants; shipbuilding.

Espiral de PVC rígido antichoque / Anti-shock rigid PVC spiral

Tubo de PVC-P autoextinguible  
Flame retardant plasticized PVC hose



## Ficha técnica / Technical data

| Código         | Ø Int.       | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|--------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch      | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| EF750250000000 | 25*          | 0,8          | 2,7          | 160    | 2                  | 32              | 50         | 0,073          |
| EF750320000000 | 31,8*/1.1/4" | 0,8          | 2,7          | 200    | 2                  | 35              | 50         | 0,121          |
| EF750380000000 | 38,1*/1.1/2" | 0,8          | 3,0          | 250    | 2                  | 45              | 50         | 0,141          |
| EF750400000000 | 40*          | 0,8          | 3,1          | 280    | 2                  | 50              | 50         | 0,177          |
| EF750450000000 | 45*          | 0,8          | 3,4          | 350    | 2                  | 55              | 50         | 0,199          |
| EF750500000000 | 50*          | 0,9          | 3,7          | 430    | 2                  | 60              | 50         | 0,248          |
| EF750520000000 | 50,8*/2"     | 0,9          | 3,7          | 440    | 2                  | 60              | 50         | 0,251          |
| EF750550000000 | 55*          | 0,9          | 3,7          | 470    | 2                  | 65              | 50         | 0,270          |
| EF750600000000 | 60*          | 0,9          | 3,7          | 510    | 1,6                | 70              | 50         | 0,388          |
| EF750630000000 | 63,5*/2.1/2" | 0,9          | 3,7          | 540    | 1,6                | 70              | 50         | 0,408          |
| EF750700000000 | 70*/2.3/4"   | 1,0          | 3,9          | 580    | 1,5                | 90              | 50         | 0,448          |
| EF750760000000 | 76,2*/3"     | 1,0          | 3,9          | 630    | 1,5                | 100             | 50         | 0,605          |
| EF750800000000 | 80*          | 1,0          | 4,5          | 750    | 1,5                | 110             | 50         | 0,641          |
| EF750900000000 | 90*          | 1,0          | 4,5          | 840    | 1,5                | 130             | 30         | 0,428          |
| EF751000000000 | 100*         | 1,0          | 4,9          | 980    | 1,3                | 140             | 30         | 0,632          |
| EF751020000000 | 102*/4"      | 1,0          | 4,9          | 1000   | 1,3                | 145             | 30         | 0,644          |
| EF751100000000 | 110*         | 1,0          | 5,1          | 1090   | 1,2                | 150             | 30         | 0,692          |
| EF751200000000 | 120*         | 1,0          | 5,1          | 1190   | 1                  | 160             | 30         | 0,750          |
| EF751270000000 | 127*/5"      | 1,0          | 5,1          | 1260   | 0,9                | 170             | 30         | 0,790          |
| EF751300000000 | 130*         | 1,0          | 5,1          | 1280   | 0,9                | 170             | 30         | 1,077          |
| EF751400000000 | 140*         | 1,0          | 5,3          | 1450   | 0,9                | 175             | 30         | 1,157          |
| EF751500000000 | 151,5*       | 1,1          | 5,5          | 1610   | 0,9                | 180             | 20         | 0,832          |
| EF751520000000 | 152,4*/6"    | 1,1          | 5,5          | 1610   | 0,9                | 180             | 20         | 0,837          |
| EF751600000000 | 160*         | 1,5          | 6,8          | 2200   | 0,9                | 200             | 20         | 0,889          |
| EF751800000000 | 180*         | 1,5          | 6,9          | 2510   | 0,9                | 220             | 20         | 1,550          |
| EF752000000000 | 200*         | 1,6          | 7,4          | 2940   | 0,9                | 240             | 20         | 1,718          |
| EF752030000000 | 203,2*/8"    | 1,6          | 7,4          | 2990   | 0,9                | 250             | 20         | 1,744          |
| EF752500000000 | 250*         | 1,5          | 7,4          | 3590   | 0,9                | 280             | 10         | 1,356          |
| EF752540000000 | 254*/10"     | 1,5          | 7,4          | 3640   | 0,9                | 290             | 10         | 1,376          |
| EF753000000000 | 300*         | 1,5          | 7,6          | 4440   | 0,9                | 330             | 10         | 1,614          |

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# **Petrolquímico** **Petrochemical**

**APOLLO OIL**  
**APOLLO NL1 OIL**  
**PLUTONE PK**  
**PLUTONE PO**  
**MARTE A.O.**  
**SPIRALPRESS OIL**



# APOLLO OIL

(Cod. Ol 01)



**Tubo de PVC/NBR de color azul, reforzado con espiral de PVC rígido antichoque.** Interno liso y externo ligeramente corrugado. Muy resistente al aplastamiento, a la abrasión, a los agentes atmosféricos y a numerosas sustancias químicas. Versión antiestática (con hilo de cobre) según pedido. Para derivados petrolíferos (no sólo petróleo).

- Aspiración e impulsión de hidrocarburos: aceites minerales, lubricantes, carburantes crudos (nafta, gasolio) y como línea de retorno de circuitos hidráulicos.

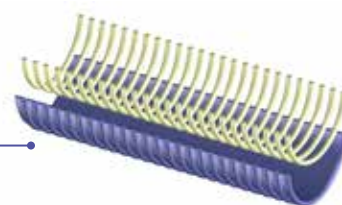
*Blue PVC-NBR hose manufactured incorporating a spiral reinforcement of anti-shock rigid PVC. Inside surface smooth, light corrugated outside. Very strong and resistant to crushing, abrasion, atmospheric agents and most chemicals. Petrol base products (not solely petrol). On request, it can be manufactured in the antistatic version with copper wire.*

- Suction and delivery of mineral oils, lubricants, crude fuel (naphta, diesel oil) and as a return line in hydraulic systems



Espiral de PVC rígido antichoque / Anti-shock rigid PVC spiral

Tubo de PVC/NBR / PVC/NBR hose



## Ficha técnica / Technical data

| Código        | Ø int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|---------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code          | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|               | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| 0101020000000 | 20*          | 3,2          | 3,5          | 290    | 7,0   | 21    | 10                 | 80              | 50         | 0,069          |
| 0101025000000 | 25*          | 3,4          | 3,8          | 390    | 6,0   | 18    | 10                 | 100             | 50         | 0,083          |
| 0101025400000 | 25,4*/1"     | 3,4          | 3,8          | 400    | 6,0   | 18    | 10                 | 100             | 50         | 0,084          |
| 0101032000000 | 31,8*/1.1/4" | 4,0          | 4,4          | 590    | 6,0   | 18    | 10                 | 130             | 50         | 0,130          |
| 0101038000000 | 38,1*/1.1/2" | 3,9          | 4,5          | 670    | 5,0   | 15    | 10                 | 155             | 50         | 0,203          |
| 0101040000000 | 40*          | 3,9          | 4,5          | 700    | 5,0   | 15    | 10                 | 160             | 50         | 0,212          |
| 0101052000000 | 50,8*/2"     | 4,3          | 4,9          | 970    | 4,0   | 12    | 10                 | 200             | 50         | 0,262          |
| 0101055000000 | 55*          | 4,5          | 5,1          | 1100   | 4,0   | 12    | 9                  | 220             | 50         | 0,376          |
| 0101060000000 | 60*          | 4,7          | 5,4          | 1270   | 4,0   | 12    | 9                  | 260             | 50         | 0,408          |
| 0101063000000 | 63,5*/2.1/2" | 4,8          | 5,5          | 1370   | 4,0   | 12    | 9                  | 260             | 50         | 0,429          |
| 0101070000000 | 70*/2.3/4"   | 4,9          | 5,6          | 1490   | 3,0   | 9     | 9                  | 350             | 50         | 0,585          |
| 0101076000000 | 76,2*/3"     | 5,0          | 5,7          | 1660   | 3,0   | 9     | 9                  | 310             | 50         | 0,631          |
| 0101080000000 | 80*          | 5,2          | 6,0          | 1810   | 3,0   | 9     | 9                  | 400             | 50         | 0,795          |
| 0101090000000 | 90*          | 5,4          | 6,3          | 2110   | 3,0   | 9     | 9                  | 360             | 30         | 0,591          |
| 0101102000000 | 102*/4"      | 6,0          | 7,1          | 2680   | 3,0   | 9     | 8,5                | 410             | 30         | 0,837          |
| 0101127000000 | 127*/5"      | 6,4          | 7,5          | 3510   | 2,5   | 7,5   | 8                  | 510             | 30         | 1,091          |
| 0101152000000 | 152,4*/6"    | 7,4          | 8,7          | 4930   | 2,0   | 6     | 8                  | 610             | 20         | 1,358          |
| 0101203000000 | 203,2*/8"    | 10,9         | 12,9         | 10010  | 1,5   | 4,5   | 7                  | 850             | 10         | 1,832          |

\*Disponibile su richiesta, per quantitativi da concordare con l'ufficio vendite / \*Available on request, contact our sales office for more info and quantities

I dati tecnici qui riportati sono stati misurati a 23°C e al 50% di umidità / The technical data here reported were measured at 23°C with 50% humidity

# APOLLO NL1 OIL

(Cod. A1 09)



**Tubo de PVC/NBR de color azul, reforzado con espiral de PVC rígido antichoque gris.** Estructura con espiral a vista, consiente la reducción de la fricción durante su desplazamiento. Fórmula especial específica para mantener una alta flexibilidad, incluso a bajas temperaturas. Interno liso y externo ligeramente corrugado. Muy resistente al aplastamiento, a la abrasión, a los agentes atmosféricos y a numerosas substancias químicas. Versión antiestática (con hilo de cobre) según pedido.

• Aspiración e impulsión de hidrocarburos: aceites minerales, lubricantes, carburantes crudos (nafta, gasolio) y como línea de retorno de circuitos hidráulicos. Aspiración y paso de líquidos de aguas residuales

*Blue PVC-NBR hose manufactured using super elastic material and reinforced with grey anti-shock rigid PVC spiral. Its exposed spiral allows an easy dragging. Special formulation conceived for keeping flexibility even at low temperatures. Inside surface smooth, slightly corrugated outside. Very strong and resistant to crushing, abrasion, atmospheric agents and most chemicals. Antistatic version with copper wire available on request.*

• Suction and delivery of mineral oils, lubricants, crude fuel (naphta, diesel oil) and as a return line in hydraulic systems; in waste management it is used as suction and discharge hose.

Formulación de PVC/NBR / PVC/NBR hose

Espiral de PVC rígido antichoque / Anti-shock rigid PVC spiral



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp. | Max esp. | Peso | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.  |
|----------------|-------------|----------|----------|------|-------|-------|--------------------|-----------------|------------|-------|
| Code           | mm/inch     | mm       | mm       | g/m  | [bar] | [bar] | m H <sub>2</sub> O | Bending         | Coil lgth. | Vol.  |
| A1090380000000 | 38,1*1.1/2" | 3,3      | 4,8      | 650  | 4,2   | 12,5  | 8                  | 140             | 50         | 0,183 |
| A1090520000000 | 50,8*2"     | 3,6      | 5,3      | 950  | 3,5   | 10,5  | 8                  | 180             | 50         | 0,354 |
| A1090760000000 | 76,2*3"     | 4,2      | 6,2      | 1620 | 3,0   | 9     | 8                  | 290             | 50         | 0,638 |
| A1090900000000 | 90*         | 4,4      | 6,8      | 2020 | 2,5   | 7,5   | 8                  | 340             | 30         | 0,597 |
| A1091020000000 | 102/4"      | 4,8      | 7,7      | 2570 | 2,0   | 6     | 7                  | 380             | 30         | 0,902 |
| A1091270000000 | 127/5"      | 5,2      | 8,2      | 3420 | 2,0   | 6     | 7                  | 500             | 30         | 1,468 |
| A1091520000000 | 152,4/6"    | 6,1      | 9,4      | 4810 | 1,5   | 4,5   | 7                  | 630             | 20         | 1,370 |
| A1092030000000 | 203,2/8"    | 8,3      | 12,5     | 8670 | 1,0   | 3     | 6                  | 900             | 10         | 1,826 |

\*Disponibile su richiesta, per quantitativi da concordare con l'ufficio vendite / \*Available on request, contact our sales office for more info and quantities

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# PLUTONE PK (Cod. PK)



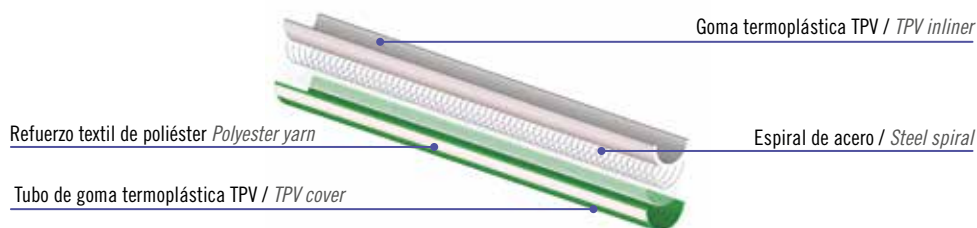
**Tubo de goma termoplástica TPV de color verde, con una tira identificativa blanca, reforzado con espiral de acero armónico y con revestimiento téxtil.** Superficie interna y cobertura externa lisas para reducir la fricción y el posible acúmulo de residuos. Estudiado para la industria química. Muy resistente a los agentes atmosféricos, al ozono, al envejecimiento y a numerosas substancias químicas. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Industria química: aspiración y transporte de ácidos, álcalis y substancias químicas

*White/beige TPV inline, reinforced with steel spiral and polyester yarn. TPV cover with longitudinal white stripe. Liner and cover are smooth, to reduce friction and dirt collection while using it. Robust hose dedicated to the chemical industry, suitable for suction and delivery.*

*It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Good resistance to ageing, weather conditions and ozone.*

- Suction and delivery of acids, alcali and chemicals of various kind.



## Ficha técnica / Technical data

| Código         | Ø Int.     | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|------------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|--|
| Code           | Ø Int.     | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |  |
|                | mm/inch    | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |  |
| PK010140022000 | 14*        | 22     | 260    | 19    | 57    | 10                 | 60              | 60         | 0,048          |  |
| PK010200029000 | 20         | 29     | 390    | 14    | 42    | 10                 | 80              | 60         | 0,106          |  |
| PK010250035000 | 25         | 35     | 540    | 13    | 39    | 10                 | 100             | 60         | 0,146          |  |
| PK010300040000 | 30*        | 40     | 630    | 13    | 39    | 9                  | 120             | 60         | 0,184          |  |
| PK010320043000 | 32         | 43     | 730    | 12    | 36    | 9                  | 130             | 60         | 0,214          |  |
| PK010380049000 | 38         | 49     | 850    | 12    | 36    | 9                  | 150             | 30         | 0,198          |  |
| PK010400051000 | 40*        | 51     | 885    | 11    | 33    | 9                  | 160             | 30         | 0,202          |  |
| PK010450058000 | 45*        | 58     | 1280   | 15    | 45    | 8                  | 230             | 30         | 0,241          |  |
| PK010500063000 | 50         | 63     | 1400   | 13    | 39    | 8                  | 250             | 30         | 0,286          |  |
| PK010520065000 | 52*        | 65     | 1450   | 13    | 39    | 8                  | 260             | 30         | 0,291          |  |
| PK010600074000 | 60*        | 74     | 1755   | 12    | 36    | 8                  | 300             | 30         | 0,363          |  |
| PK010630077000 | 63*        | 77     | 1835   | 11    | 33    | 8                  | 320             | 30         | 0,379          |  |
| PK010700085000 | 70*/2.3/4" | 85     | 2110   | 10    | 30    | 7                  | 350             | 30         | 0,469          |  |
| PK010760091000 | 76*        | 91     | 2275   | 10    | 30    | 7                  | 380             | 30         | 0,604          |  |
| PK010800095000 | 80*        | 95     | 2360   | 10    | 30    | 7                  | 400             | 20         | 0,498          |  |
| PK010900106000 | 90*        | 106    | 2865   | 9     | 27    | 7                  | 450             | 20         | 0,760          |  |
| PK011020118000 | 102*/4"    | 118    | 3210   | 8     | 24    | 7                  | 510             | 20         | 0,801          |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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disponible en stock / available on stock

# PLUTONE PO

(Cod. PH)

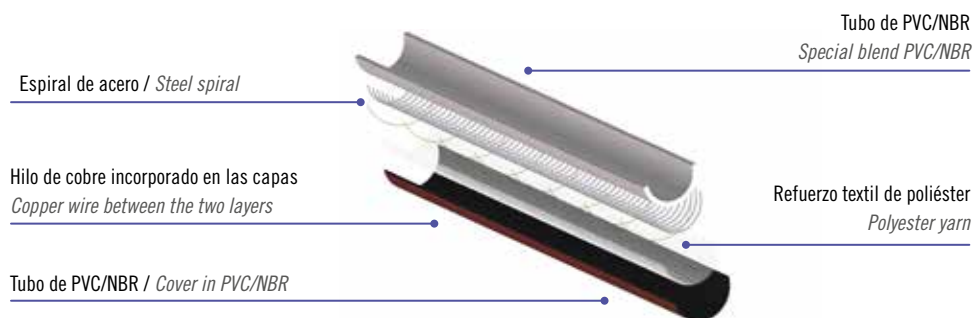


**Tubo de color negro con una raya identificativa marrón oscuro, de composición especial de PVC/NBR reforzado con espiral de acero armónico y con revestimiento téxtil de alta tenacidad.** Antiestática ( $R < 10^2$  Ohm/m) conectando a tierra el hilo de cobre incorporado en las capas. Superficie interna y cobertura externa lisas para reducir la fricción y el posible acúmulo de residuos. Muy flexible a bajas temperaturas. Resistente a la abrasión, al envejecimiento, a los agentes atmosféricos y al ozono.

- Industria química: para aspiración y transporte de aceites minerales, lubricantes, carburantes crudos (nafta, gasolio) y como línea de retorno de circuitos hidráulicos.

*Black hose with a brown stripe on the cover: inner layer made with a special blend of PVC/NBR, the structure is reinforced both by a harmonic steel wire and polyester yarn. The copper wire between the two layers makes the hose conductive ( $R < 10^2$  Ohm/m). Liner and cover are smooth, to reduce friction and dirt collection while using it. Very flexible even at low temperatures, resistant to abrasion, ageing, atmospheric agents and ozone.*

- Suction and delivery of mineral oils, lubricants, crude fuel (naphta, diesel oil) and as a return line in hydraulic systems.



## Ficha técnica / Technical data

| Código         | Ø Int.  | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|---------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.  | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                       |
|                | mm/inch | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                       |
| PH010200029000 | 20      | 29     | 470    | 14    | 42    | 10                 | 60              | 60         | 0,106          |                                                                                       |
| PH010246035000 | 24,6*   | 35     | 670    | 12    | 36    | 10                 | 70              | 60         | 0,135          |                                                                                       |
| PH010250035000 | 25      | 35     | 650    | 12    | 36    | 10                 | 80              | 60         | 0,146          |                                                                                       |
| PH010300040000 | 30*     | 40     | 760    | 11    | 33    | 9                  | 90              | 60         | 0,181          |                                                                                       |
| PH010320043000 | 32*     | 43     | 885    | 11    | 33    | 9                  | 100             | 60         | 0,214          |                                                                                       |
| PH010350046000 | 35*     | 46     | 955    | 10    | 30    | 9                  | 110             | 60         | 0,225          |                                                                                       |
| PH010380049000 | 38*     | 49     | 1025   | 10    | 30    | 9                  | 110             | 30         | 0,198          |                                                                                       |
| PH010400053000 | 40      | 53     | 1275   | 10    | 30    | 9                  | 120             | 30         | 0,207          |                                                                                       |
| PH010450058000 | 45*     | 58     | 1500   | 9     | 27    | 8                  | 140             | 30         | 0,241          |                                                                                       |
| PH010500063000 | 50      | 63     | 1645   | 8     | 24    | 8                  | 150             | 30         | 0,286          |                                                                                       |
| PH010520065000 | 52*     | 65     | 1705   | 8     | 24    | 8                  | 160             | 30         | 0,291          |                                                                                       |
| PH010600074000 | 60*     | 74     | 2070   | 7     | 21    | 8                  | 180             | 30         | 0,363          |                                                                                       |
| PH010630077000 | 63*     | 77     | 2165   | 7     | 21    | 8                  | 190             | 30         | 0,379          |                                                                                       |
| PH010760091000 | 76*     | 91     | 2705   | 6     | 18    | 7                  | 230             | 30         | 0,604          |                                                                                       |
| PH010800095000 | 80*     | 95     | 2805   | 6     | 18    | 7                  | 240             | 20         | 0,498          |                                                                                       |
| PH010900106000 | 90*     | 106    | 3415   | 5     | 15    | 7                  | 270             | 20         | 0,760          |                                                                                       |
| PH011020118000 | 102*/4" | 118    | 3830   | 4     | 12    | 7                  | 310             | 20         | 0,801          |                                                                                       |

\* Disponible bajo demanda. Consulte con ventas para más información y cantidades / \* Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock

# MARTE A.O. (Cod. MT)



**Tubo de color azul, elaborado con un compuesto especial de PVC antimigración con espiral de refuerzo de PVC rígido antichoque.** Superficie interna perfectamente lisa. Resistente a la abrasión, a los agentes atmosféricos. Versión antiestática (con hilo de cobre) según pedido.

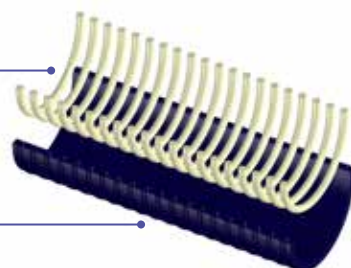
- Aspiración e impulsión de aceites minerales carburantes brutos (nafta, gasoil) y lubricantes en general.

*Blue hose in special antimigration PVC compound, reinforced with an anti-shock rigid PVC spiral. Inside completely smooth. it's resistant to abrasion, ageing, atmospheric agents and ozone. On request, it is available the antistatic version with copper wire.*

- Suction and delivery of mineral oils, lubricants, crude oils (naphta and diesel oil).

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

Compuesto especial de PVC antimigración  
Antimigration PVC compound



## Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|--|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |  |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |  |
| MT010190000000 | 19,1*/3/4"   | 4,0          | 4,3          | 390    | 8,0   | 24    | 10                 | 140             | 50         | 0,071          |  |
| MT010200000000 | 20*          | 4,0          | 4,3          | 400    | 8,0   | 24    | 10                 | 140             | 50         | 0,073          |  |
| MT010220000000 | 22*          | 4,1          | 4,4          | 450    | 8,0   | 24    | 10                 | 160             | 50         | 0,079          |  |
| MT010250000000 | 25*          | 4,3          | 4,6          | 530    | 8,0   | 24    | 10                 | 170             | 50         | 0,109          |  |
| MT010254000000 | 25,4*/1"     | 4,3          | 4,6          | 540    | 8,0   | 24    | 10                 | 170             | 50         | 0,111          |  |
| MT010300000000 | 30*          | 4,4          | 4,7          | 640    | 8,0   | 24    | 10                 | 195             | 50         | 0,126          |  |
| MT010320000000 | 31,8*/1.1/4" | 4,4          | 4,7          | 670    | 8,0   | 24    | 10                 | 205             | 50         | 0,132          |  |
| MT010350000000 | 35*          | 4,4          | 4,8          | 730    | 7,0   | 21    | 10                 | 220             | 50         | 0,171          |  |
| MT010380000000 | 38,1*/1.1/2" | 4,4          | 4,8          | 790    | 7,0   | 21    | 10                 | 235             | 50         | 0,206          |  |
| MT010400000000 | 40*          | 4,3          | 4,8          | 810    | 7,0   | 21    | 10                 | 250             | 50         | 0,214          |  |
| MT010450000000 | 45*          | 4,4          | 4,8          | 910    | 6,0   | 18    | 10                 | 275             | 50         | 0,236          |  |
| MT010500000000 | 50*          | 4,9          | 5,3          | 1130   | 6,0   | 18    | 10                 | 300             | 50         | 0,436          |  |
| MT010520000000 | 50,8*/2"     | 4,9          | 5,3          | 1150   | 6,0   | 18    | 10                 | 300             | 50         | 0,442          |  |
| MT010550000000 | 55*          | 5,3          | 5,8          | 1370   | 6,0   | 18    | 10                 | 330             | 50         | 0,384          |  |
| MT010600000000 | 60*          | 5,4          | 5,9          | 1510   | 6,0   | 18    | 10                 | 355             | 50         | 0,620          |  |
| MT010630000000 | 63,5*/2.1/2" | 5,6          | 6,0          | 1640   | 6,0   | 18    | 10                 | 370             | 50         | 0,652          |  |
| MT010700000000 | 70*/2.3/4"   | 5,8          | 6,3          | 1850   | 5,0   | 15    | 10                 | 410             | 50         | 0,714          |  |
| MT010760000000 | 76,2*/3"     | 5,8          | 6,3          | 2000   | 5,0   | 15    | 10                 | 440             | 50         | 0,767          |  |
| MT010800000000 | 80*          | 5,9          | 6,6          | 2130   | 5,0   | 15    | 10                 | 460             | 30         | 0,671          |  |
| MT010900000000 | 90*          | 6,2          | 6,9          | 2520   | 4,0   | 12    | 10                 | 530             | 30         | 0,747          |  |
| MT011000000000 | 100*         | 7,1          | 7,9          | 3220   | 4,0   | 12    | 9                  | 600             | 30         | 0,889          |  |
| MT011020000000 | 102*/4"      | 7,1          | 7,9          | 3280   | 4,0   | 12    | 9                  | 600             | 30         | 0,905          |  |
| MT011100000000 | 110*         | 7,2          | 8,0          | 3560   | 4,0   | 12    | 9                  | 690             | 30         | 1,290          |  |
| MT011270000000 | 127*/5"      | 7,3          | 8,1          | 4140   | 4,0   | 12    | 9                  | 800             | 30         | 1,466          |  |
| MT011500000000 | 151,5*       | 9,0          | 10,0         | 6200   | 3,0   | 9     | 8,5                | 1300            | 20         | 1,372          |  |
| MT011520000000 | 152,4*/6"    | 9,0          | 10,0         | 6230   | 3,0   | 9     | 8,5                | 1300            | 20         | 1,379          |  |
| MT012030000000 | 203,2*/8"    | 10,7         | 12,5         | 10030  | 2,0   | 6     | 7                  | 1200            | 10         | 1,826          |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

**TE** disponible en stock / available on stock



# SPIRALPRESS OIL

(Cod. SQ)



Tubo de PVC/NBR de color negro, con espiral de PVC rígido antichoque de color naranja y con refuerzo textil de poliéster de alta tenacidad. Estructura con espiral exterior, consiente la reducción de la fricción durante su desplazamiento. Antiestática ( $R < 10^2 \text{ Ohm/m}$ ) conectando a tierra el hilo de cobre incorporado en la spiral de PVC. Más ligero y flexible que las mangueras de caucho convencionales. Muy resistente a aceites y lubricantes.

- Carga y descarga de hidrocarburos y gasolina con contenido aromático de hasta el 50%. Espiral disponible bajo pedido.

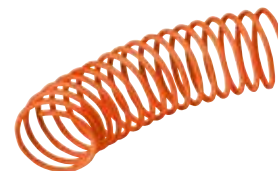
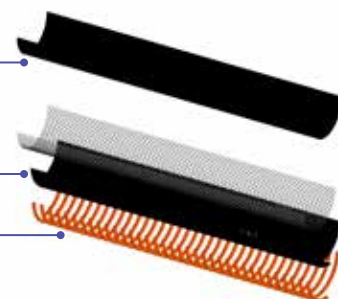
*Special black NBR-PVC tank drop hose, reinforced with an anti-shock rigid PVC spiral and Polyester yarn; exposed spiral for easy handling and dragging. The hose is conductive ( $R < 10^2 \text{ Ohm/m}$ ) by earthing the copper wire under the PVC spiral. Lighter and more flexible than conventional rubber hoses. It's very resistant to oils and lubricants.*

- *Excellent solution for suction and discharge of petroleum and gasoline with an aromatic content up to 50%. Banding coil available on request.*

Formulación especial de PVC/NBR / Special PVC/NBR formulation

Refuerzo textil de poliéster / Textile reinforcement

Espiral de PVC rígido antichoque / Anti-shock rigid PVC spiral



Espiral para facilitar el racorado con abrazadera bajo pedido (Cod. SC WT)

Banding coil available (Code SC WT)

## Ficha técnica / Technical data

| Código                                                                                                                                                         | Ø Int.   | Ø Est. | Min esp.     | Max esp.     | Peso   | P.T.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           | Lg. espiral       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|--------------|--------------|--------|-------|--------------------|-----------------|------------|----------------|-------------------|
| Code                                                                                                                                                           | Ø Int.   | Ø Out. | Min wall th. | Max wall th. | Weight | W.P.  | Vac.               | Bending         | Coil lgth. | Vol.           | Banding coil Lgth |
|                                                                                                                                                                | mm/inch  | mm     | mm           | mm           | g/m    | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> | mm                |
| SQ010508000000                                                                                                                                                 | 50,8/2"  | 66,6   | 3,2          | 7,9          | 1150   | 7     | 9,5                | 200             | 30         | 0,288          | 180               |
| SQ010760000000                                                                                                                                                 | 76,2/3"  | 96,2   | 3,7          | 10           | 1960   | 6     | 9                  | 260             | 30         | 0,416          | 225               |
| SQ011020000000                                                                                                                                                 | 101,6/4" | 123,0  | 3,7          | 10,7         | 2730   | 6     | 9                  | 360             | 30         | 0,945          | 240               |
| *Disponible bajo demanda. Consulte con ventas para más información y cantidades / *Available on request, contact our sales office for more info and quantities |          |        |              |              |        |       |                    |                 |            |                |                   |
| Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity         |          |        |              |              |        |       |                    |                 |            |                |                   |





# Líquidos

## Fluids Handling



**APOLLO SE**  
**APOLLO NL 1**  
**APOLLO SUPERFLEX**  
**APOLLO SUPERFLEX 2**  
**SPIRALPRESS WT**  
**PLUTONE PW**  
**GIOVE SE**  
**NETTUNO SE**

**SATURNO L**  
**SATURNO L SE**  
**SATURNO IDRO SE**  
**NAUTILUS ODORSAFE**  
**ARIANNA 20 BAR**  
**ARIANNA 40 BAR**  
**ARIANNA 80 BAR**

# APOLLO SE (Cod. AX)



**Tubo azul con una raya roja, de PVC-P reforzado con espiral de PVC rígido antichoque.** Superficie interna perfectamente lisa; flexible incluso a bajas temperaturas. Resistente a la abrasión, a los agentes atmosféricos y a numerosas sustancias químicas. Versión antiestática (con hilo de cobre) bajo pedido.

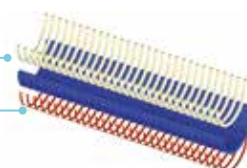
- Óptimo para aspiración de líquidos en general y especialmente para utilizarse en camiones cisterna por sus características físico-mecánicas; aspiración de residuos, descarga de aguas negras.

*Blue PVC-P hose with an extruded red stripe, reinforced with an anti-shock rigid PVC spiral. Particularly suitable to be used at low temperatures. Inside surface completely smooth, light corrugation outside. Strong and flexible, resistant to crushing, abrasion, atmospheric agents and to most chemicals. It can be manufactured in antistatic version with copper wire, on request.*

- Excellent for suction of liquids in waste management, particularly suitable to be used on tank trucks thanks to its physical- mechanical features.

Espirales de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo                       |           |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|---------------------------------|-----------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth.                      |           |
|                | mm/inch     | mm           | mm           | g/m    | (bar) | (bar) | m H <sub>2</sub> O | mm              | m                               |           |
| AX010190000000 | 19,1*3/4"   | 3,2          | 3,6          | 290    | 7,0   | 21    | 10                 | 80              | 50                              |           |
| AX010200000000 | 20*         | 3,2          | 3,6          | 300    | 7,0   | 21    | 10                 | 80              | 50                              |           |
| AX010250000000 | 25          | 3,4          | 3,9          | 400    | 6,0   | 18    | 10                 | 100             | 50                              |           |
| AX010300000000 | 30          | 3,9          | 4,3          | 540    | 6,0   | 18    | 10                 | 120             | 50                              |           |
| AX010320000000 | 31,8/1.1/4" | 3,9          | 4,3          | 570    | 6,0   | 18    | 10                 | 130             | 50                              |           |
| AX010350000000 | 35*         | 3,9          | 4,4          | 620    | 5,0   | 15    | 10                 | 140             | 50                              |           |
| AX010380000000 | 38,1/1.1/2" | 3,9          | 4,4          | 670    | 5,0   | 15    | 10                 | 155             | 50                              |           |
| AX010390000000 | 39*         | 3,9          | 4,4          | 680    | 5,0   | 15    | 10                 | 155             | 50                              |           |
| AX010400000000 | 40          | 3,9          | 4,4          | 700    | 5,0   | 15    | 10                 | 160             | 50                              |           |
| AX010450000000 | 45*         | 4,1          | 4,6          | 830    | 4,0   | 12    | 10                 | 180             | 50                              |           |
| AX010500000000 | 50          | 4,3          | 4,8          | 950    | 4,0   | 12    | 10                 | 200             | 50                              |           |
| AX010515000000 | 51,5*       | 4,3          | 4,8          | 980    | 4,0   | 12    | 10                 | 200             | 50                              |           |
| AX010520000000 | 50,8/2"     | 4,3          | 4,8          | 970    | 4,0   | 12    | 10                 | 200             | 50                              |           |
| AX010550000000 | 55*         | 4,4          | 5,0          | 1080   | 4,0   | 12    | 9                  | 220             | 50                              |           |
| AX010570000000 | 57*         | 4,4          | 5,0          | 1120   | 4,0   | 12    | 9                  | 230             | 50                              |           |
| AX010600000000 | 60          | 4,5          | 5,1          | 1210   | 4,0   | 12    | 9                  | 240             | 50                              |           |
| AX010630000000 | 63,5/2.1/2" | 4,8          | 5,4          | 1370   | 4,0   | 12    | 9                  | 260             | 50                              |           |
| AX010650000000 | 65*         | 4,9          | 5,6          | 1450   | 3,0   | 9     | 9                  | 270             | 50                              |           |
| AX010700000000 | 70/2.3/4"   | 5,0          | 5,8          | 1560   | 3,0   | 9     | 9                  | 280             | 50                              |           |
| AX010760000000 | 76,2/3"     | 5,0          | 6,1          | 1750   | 3,0   | 9     | 9                  | 310             | 50                              |           |
| AX010800000000 | 80          | 5,1          | 6,3          | 1860   | 3,0   | 9     | 9                  | 320             | 50                              | 30 m/50 m |
| AX010900000000 | 90          | 5,3          | 6,6          | 2190   | 3,0   | 9     | 9                  | 360             | 30                              |           |
| AX011000000000 | 100         | 6,1          | 7,6          | 2830   | 3,0   | 9     | 9                  | 410             | 30                              |           |
| AX011020000000 | 102/4"      | 6,1          | 7,6          | 2880   | 3,0   | 9     | 9                  | 410             | 30                              |           |
| AX011035000000 | 103,5*      | 6,1          | 7,6          | 2920   | 3,0   | 9     | 9                  | 410             | 30                              |           |
| AX011050000000 | 105*        | 6,1          | 7,7          | 2990   | 3,0   | 9     | 9                  | 430             | 30                              |           |
| AX011100000000 | 110         | 6,1          | 7,7          | 3090   | 3,0   | 9     | 9                  | 450             | 30                              |           |
| AX011200000000 | 120         | 6,3          | 7,9          | 3480   | 2,5   | 7,5   | 9                  | 480             | 30                              |           |
| AX011250000000 | 125*        | 6,3          | 7,9          | 3620   | 2,5   | 7,5   | 9                  | 510             | 30                              |           |
| AX011270000000 | 127/5"      | 6,3          | 7,9          | 3670   | 2,5   | 7,5   | 9                  | 510             | 30                              |           |
| AX011300000000 | 130*        | 7,0          | 8,3          | 4080   | 2,5   | 7,5   | 8                  | 530             | 30                              |           |
| AX011330000000 | 133*/5.1/4" | 7,0          | 8,3          | 4170   | 2,5   | 7,5   | 8                  | 530             | 30                              |           |
| AX011500000000 | 151,5       | 7,4          | 8,8          | 4990   | 2,0   | 6     | 8                  | 610             | 20                              |           |
| AX011520000000 | 152,4/6"    | 7,4          | 8,8          | 5020   | 2,0   | 6     | 8                  | 610             | 20                              |           |
| AX011600000000 | 160*        | 7,9          | 9,3          | 5500   | 2,0   | 6     | 7                  | 660             | 20                              |           |
| AX012000000000 | 200*        | 11,0         | 12,3         | 9670   | 1,5   | 4,5   | 7                  | 850             | 10                              |           |
| AX012030000000 | 203,2*/8"   | 11,0         | 12,3         | 9810   | 1,5   | 4,5   | 7                  | 850             | 10                              |           |
| AX012500000000 | 250*        | 11,0         | 12,8         | 12270  | 1,2   | 3,7   | 7                  | 1500            | 10 m pz.dritti<br>10 m straight |           |
| AX012540000000 | 254*/10"    | 11,0         | 12,8         | 12460  | 1,2   | 3,7   | 7                  | 1500            | 10 m pz.dritti<br>10 m straight |           |
| AX013000000000 | 300*        | 11,5         | 13,3         | 15350  | 1,0   | 3     | 5                  | 1800            | 10 m pz.dritti<br>10 m straight |           |
| AX013050000000 | 304,8*/12"  | 11,5         | 13,3         | 15590  | 1,0   | 3     | 5                  | 1800            | 10 m pz.dritti<br>10 m straight |           |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

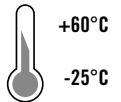
Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

disponible en stock / available on stock



# APOLLO NL 1

(Cod. A1)



**Tubo de PVC-P muy elástico de color gris con espiral de PVC rígida antichoque de color celeste.** Fórmula especial específica para mantener una alta flexibilidad, incluso a bajas temperaturas. Estructura con espiral a vista, consiente la reducción de la fricción durante su desplazamiento. Completamente liso al interno y ligeramente corrugado al externo, resiste a los agentes atmosféricos y a numerosas sustancias químicas. Versión antiestática (con hilo de cobre) bajo pedido.

• Óptimo para aspiración y paso de líquidos de aguas residuales, líquidos industriales, especialmente eficaz para su uso en camiones cisternas gracias a sus propiedades físico-mecánicas.

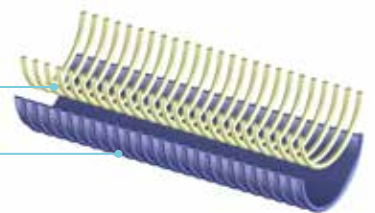
*Grey plasticized PVC hose manufactured with super elastic material and reinforced with anti-shock rigid PVC spiral. Special formulation conceived for keeping high flexibility even at low temperatures. Its exposed spiral allows less resistance to dragging.*

*Inside smooth and corrugated outside, it resists to weather agents and to most chemicals. The antistatic version with copper wire is available on request.*

• In Waste Management and agriculture, excellent solution for suction and discharge of industrial water, slurries and liquids; particularly suitable to be used on tank trucks.

Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          |
| A1010254000000 | 25,4*/1"     | 2,7          | 3,8          | 340    | 5,0   | 15    | 8                  | 130             | 50         |
| A1010320000000 | 31,8*/1.1/4" | 3,0          | 4,3          | 500    | 5,0   | 15    | 8                  | 130             | 50         |
| A1010380000000 | 38,1*/1.1/2" | 3,3          | 4,8          | 650    | 4,2   | 12,5  | 8                  | 140             | 50         |
| A1010390000000 | 39*          | 3,3          | 4,8          | 670    | 4,2   | 12,5  | 8                  | 140             | 50         |
| A1010500000000 | 50*          | 3,6          | 5,3          | 940    | 3,5   | 10,5  | 8                  | 180             | 50         |
| A1010515000000 | 51,5*        | 3,6          | 5,3          | 970    | 3,5   | 10,5  | 8                  | 180             | 50         |
| A1010520000000 | 50,8*/2"     | 3,6          | 5,3          | 950    | 3,5   | 10,5  | 8                  | 180             | 50         |
| A1010570000000 | 57*          | 3,8          | 5,6          | 1140   | 3,0   | 9     | 8                  | 205             | 50         |
| A1010630000000 | 63,5*/2.1/2" | 3,9          | 5,8          | 1320   | 3,0   | 9     | 8                  | 230             | 50         |
| A1010650000000 | 65*          | 4,2          | 5,9          | 1410   | 3,0   | 9     | 8                  | 240             | 50         |
| A1010760000000 | 76*          | 4,2          | 6,2          | 1620   | 3,0   | 9     | 8                  | 290             | 50         |
| A1010770000000 | 77,7*        | 4,2          | 6,2          | 1650   | 3,0   | 9     | 8                  | 295             | 50         |
| A1010800000000 | 80*          | 4,3          | 6,6          | 1740   | 2,5   | 7,5   | 8                  | 300             | 30         |
| A1010900000000 | 90*          | 4,4          | 6,8          | 2020   | 2,5   | 7,5   | 8                  | 340             | 30         |
| A1011000000000 | 100*         | 4,8          | 7,7          | 2530   | 2,0   | 6     | 8                  | 380             | 30         |
| A1011020000000 | 102*/4"      | 4,8          | 7,7          | 2580   | 2,0   | 6     | 7                  | 380             | 30         |
| A1011050000000 | 105*         | 4,9          | 7,7          | 2670   | 2,0   | 6     | 7                  | 395             | 30         |
| A1011100000000 | 110*         | 5,1          | 7,8          | 2830   | 2,0   | 6     | 7                  | 415             | 30         |
| A1011200000000 | 120*         | 5,1          | 8,1          | 3190   | 2,0   | 6     | 7                  | 450             | 30         |
| A1011270000000 | 127*/5"      | 5,2          | 8,2          | 3430   | 2,0   | 6     | 7                  | 500             | 30         |
| A1011500000000 | 151,5*       | 6,1          | 9,4          | 4800   | 1,5   | 4,5   | 7                  | 630             | 20         |
| A1011520000000 | 152,4*/6"    | 6,1          | 9,4          | 4830   | 1,5   | 4,5   | 7                  | 630             | 20         |
| A1011600000000 | 160*         | 6,5          | 10,2         | 5320   | 1,3   | 4     | 6                  | 750             | 20         |
| A1012000000000 | 200*         | 8,3          | 12,5         | 8580   | 1,0   | 3     | 6                  | 900             | 10         |
| A1012030000000 | 203,2*/8"    | 8,3          | 12,5         | 8710   | 1,0   | 3     | 6                  | 900             | 10         |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# APOLLO SUPERFLEX (Cod. AS)



**Tubo de PVC/NBR de color negro, reforzado con espiral de PVC rígido antichoque.** Fórmula especial específica para climas muy extremos que lo convierten en un tubo mejor que otros análogos en PVC usados comunmente. Versión antiestática (con hilo de cobre) bajo pedido.

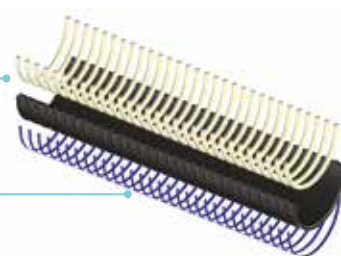
- Óptimo para aspiración en general y especialmente para la aspiración de residuos y descarga de aguas negras, aspiración e impulsión de líquidos incluso a temperaturas muy bajas.

*Black PVC/NBR hose, reinforced with an anti-shock rigid PVC spiral. Special formulation conceived for keeping the flexibility at extreme temperatures, better than similar PVC hoses commonly used. Antistatic version with copper wire available on request.*

- *Waste Management: suction and discharge of liquids; usually used on tank trunks.*

Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC/NBR / PVC/NBR hose



## Ficha técnica / Technical data

| Código<br>Code | Ø int.<br>mm/inch | Min esp.<br>mm | Max esp.<br>mm | Peso<br>Weight<br>g/m | P.T.<br>W.P.<br>[bar] | P.R.<br>B.P.<br>[bar] | Vacio<br>Vac.<br>m H <sub>2</sub> O | R. de curvatura<br>Bending<br>mm | Lg. Rollo<br>Coil lgth.<br>m |  |
|----------------|-------------------|----------------|----------------|-----------------------|-----------------------|-----------------------|-------------------------------------|----------------------------------|------------------------------|--|
| AS01020000000  | 20*               | 3,2            | 3,6            | 300                   | 5,0                   | 15                    | 8                                   | 80                               | 50                           |  |
| AS01025000000  | 25                | 3,4            | 3,9            | 400                   | 5,0                   | 15                    | 8                                   | 80                               | 50                           |  |
| AS01030000000  | 30*               | 3,9            | 4,3            | 550                   | 5,0                   | 15                    | 8                                   | 100                              | 50                           |  |
| AS01032000000  | 31,8/1.1/4"       | 3,9            | 4,3            | 580                   | 5,0                   | 15                    | 8                                   | 105                              | 50                           |  |
| AS01035000000  | 35*               | 3,9            | 4,4            | 630                   | 4,3                   | 13                    | 8                                   | 115                              | 50                           |  |
| AS01038000000  | 38,1/1.1/2"       | 3,9            | 4,4            | 680                   | 4,3                   | 13                    | 8                                   | 125                              | 50                           |  |
| AS01040000000  | 40*               | 3,9            | 4,4            | 710                   | 4,0                   | 12                    | 8                                   | 130                              | 50                           |  |
| AS01045000000  | 45*               | 4,1            | 4,6            | 840                   | 4,0                   | 12                    | 8                                   | 145                              | 50                           |  |
| AS01050000000  | 50*               | 4,3            | 4,8            | 960                   | 3,3                   | 10                    | 8                                   | 160                              | 50                           |  |
| AS01051500000  | 51,5*             | 4,3            | 4,8            | 990                   | 3,3                   | 10                    | 7                                   | 160                              | 50                           |  |
| AS01052000000  | 50,8/2"           | 4,3            | 4,8            | 980                   | 3,3                   | 10                    | 7                                   | 160                              | 50                           |  |
| AS01055000000  | 55*               | 4,4            | 5,0            | 1090                  | 3,3                   | 10                    | 7                                   | 180                              | 50                           |  |
| AS01057000000  | 57*               | 4,4            | 5,0            | 1130                  | 3,3                   | 10                    | 7                                   | 190                              | 50                           |  |
| AS01060000000  | 60*               | 4,5            | 5,1            | 1220                  | 3,3                   | 10                    | 7                                   | 195                              | 50                           |  |
| AS01063000000  | 63,5/2.1/2"       | 4,8            | 5,4            | 1380                  | 3,3                   | 10                    | 7                                   | 210                              | 50                           |  |
| AS01065000000  | 65*               | 4,9            | 5,6            | 1460                  | 3,0                   | 9                     | 7                                   | 210                              | 50                           |  |
| AS01070000000  | 70*/2.3/4"        | 5,0            | 5,8            | 1570                  | 3,0                   | 9                     | 7                                   | 225                              | 50                           |  |
| AS01075000000  | 75*               | 5,0            | 6,1            | 1740                  | 3,0                   | 9                     | 7                                   | 250                              | 50                           |  |
| AS01076000000  | 76,2/3"           | 5,0            | 6,1            | 1760                  | 3,0                   | 9                     | 7                                   | 250                              | 50                           |  |
| AS01080000000  | 80*               | 5,1            | 6,3            | 1880                  | 2,7                   | 8                     | 7                                   | 260                              | 50                           |  |
| AS01090000000  | 90*               | 5,3            | 6,6            | 2210                  | 2,5                   | 7,5                   | 7                                   | 300                              | 30                           |  |
| AS01100000000  | 100*              | 6,1            | 7,6            | 2840                  | 2,2                   | 6,5                   | 7                                   | 330                              | 30                           |  |
| AS01102000000  | 102/4"            | 6,1            | 7,6            | 2890                  | 2,2                   | 6,5                   | 6                                   | 335                              | 30                           |  |
| AS01105000000  | 105*              | 6,1            | 7,7            | 3000                  | 2,0                   | 6                     | 6                                   | 350                              | 30                           |  |
| AS01110000000  | 110*              | 6,1            | 7,7            | 3110                  | 2,0                   | 6                     | 6                                   | 360                              | 30                           |  |
| AS01120000000  | 120*              | 6,3            | 7,9            | 3490                  | 1,8                   | 5,5                   | 6                                   | 390                              | 30                           |  |
| AS01127000000  | 127/5"            | 6,3            | 7,9            | 3680                  | 1,8                   | 5,5                   | 6                                   | 410                              | 30                           |  |
| AS01130000000  | 130*              | 7,0            | 8,3            | 4120                  | 1,8                   | 5,5                   | 6                                   | 420                              | 30                           |  |
| AS01150000000  | 151,5*            | 7,4            | 8,8            | 5030                  | 1,5                   | 4,5                   | 6                                   | 500                              | 20                           |  |
| AS01152000000  | 152,4/6"          | 7,4            | 8,8            | 5060                  | 1,5                   | 4,5                   | 6                                   | 500                              | 20                           |  |
| AS01160000000  | 160*              | 7,9            | 9,3            | 5550                  | 1,5                   | 4,5                   | 6                                   | 540                              | 20                           |  |
| AS01200000000  | 200*              | 11,0           | 12,3           | 9750                  | 1,2                   | 3,5                   | 5                                   | 700                              | 10                           |  |
| AS01203000000  | 203,2*/8"         | 11,0           | 12,3           | 9900                  | 1,2                   | 3,5                   | 5                                   | 700                              | 10                           |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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**IE** disponible en stock / available on stock

# APOLLO SUPERFLEX 2

(Cod. SF)



+50°C

-40°C



Tubo de PVC/NBR de color negro, reforzado con espiral de PVC rígido antichoque gris. Formulación específica para climas muy rígidos que lo convierten en un tubo mejor que otros análogos en PVC usados comúnmente. Estructura con espiral a vista que garantiza un deslizamiento fácil sobre el terreno. Versión antiestática (con hilo de cobre) bajo pedido.

- Óptimo para aspiración impulsión de líquidos en general y especialmente para la aspiración de residuos y descarga de aguas negras.

*PVC/NBR hose reinforced with a gray anti-shock rigid PVC spiral. Its particular mixed rubber nitrilic formulation gives it a high flexibility at extreme low temperatures. Its profile with a slightly protruding spiral guarantees an easy dragging on the ground and an easy and safe connection. Antistatic version with copper wire on request.*

- Suction and delivery of liquids and industrial water in general; ideal to be used on tank trucks, even at extremely low temperatures.



Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC/NBR / PVC/NBR hose



## Ficha técnica / Technical data

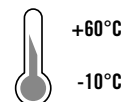
| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. |
|                | mm/inch     | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          |
| SF010520000000 | 50,8/2"     | 4,4          | 4,9          | 970    | 3,3   | 10    | 7                  | 160             | 50         |
| SF010550000000 | 55          | 4,6          | 5,1          | 1100   | 3,3   | 10    | 7                  | 160             | 50         |
| SF010600000000 | 60          | 4,8          | 5,3          | 1260   | 3,0   | 9     | 7                  | 200             | 50         |
| SF010630000000 | 63,5/2.1/2" | 4,9          | 5,5          | 1380   | 3,0   | 9     | 7                  | 210             | 50         |
| SF010650000000 | 65          | 5,0          | 5,6          | 1440   | 3,0   | 9     | 7                  | 210             | 50         |
| SF010700000000 | 70/2.3/4"   | 5,1          | 5,7          | 1530   | 3,0   | 9     | 7                  | 225             | 50         |
| SF010760000000 | 76,2/3"     | 5,1          | 5,8          | 1670   | 3,0   | 9     | 7                  | 250             | 50         |
| SF010800000000 | 80          | 5,1          | 6,8          | 1930   | 2,5   | 7,5   | 7                  | 270             | 50         |
| SF010900000000 | 90          | 5,2          | 7,0          | 2220   | 2,5   | 7,5   | 7                  | 300             | 30         |
| SF011020000000 | 102/4"      | 5,9          | 7,6          | 2770   | 2,2   | 6,5   | 6                  | 335             | 30         |
| SF011050000000 | 105         | 6,0          | 7,6          | 2870   | 2,2   | 6,5   | 6                  | 335             | 30         |
| SF011100000000 | 110         | 6,1          | 7,6          | 2990   | 2,0   | 6     | 6                  | 360             | 30         |
| SF011270000000 | 127/5"      | 6,3          | 7,8          | 3540   | 1,8   | 5,5   | 6                  | 410             | 30         |
| SF011520000000 | 152,4/6"    | 7,4          | 9,0          | 5000   | 1,5   | 4,5   | 6                  | 500             | 20         |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# SPIRALPRESS WT (Cod. WT)



**Tubo transparente de PVC-P con espiral de PVC rígido de color naranja y refuerzo textil.** Interior liso y exterior corrugado. La pared transparente favorece una mejor identificación de las substancias transportadas, mientras que la espiral sobresaliente, permite una menor fricción durante las operaciones de arrastre. El refuerzo textil, permite una mayor resistencia a la presión. Ligero y maneable. El tubo es idóneo para aplicaciones que requieran una alta resistencia a presiones elevadas. Pared y espiral son de grado alimentario, según la normativa UE 10/2011 (clases A, B, C, D1).

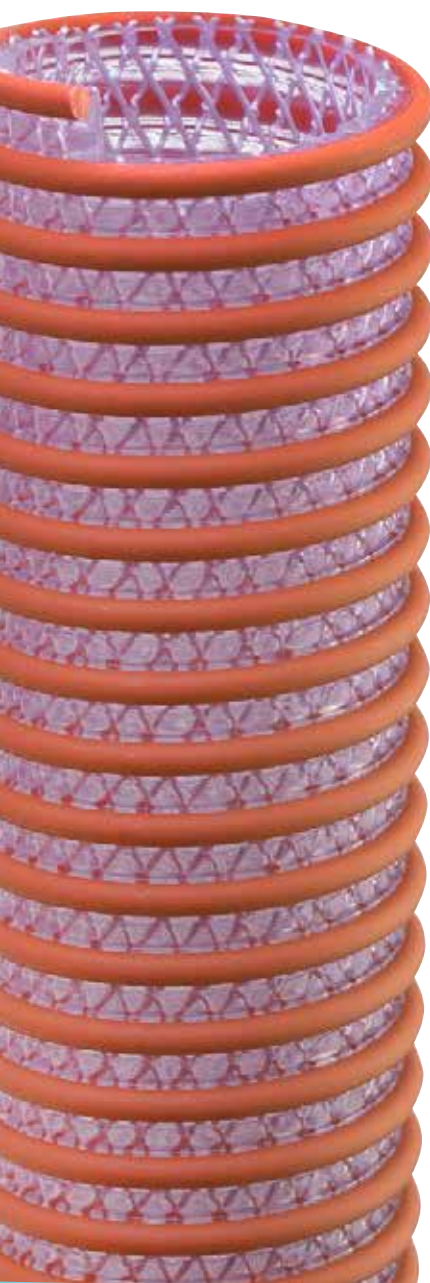
Espiral disponible para facilitar el racorado con abrazaderas.

- Solución ideal para la aspiración y transporte de agua, incluso a presiones elevadas, y en condiciones extremas, en los sistemas de bombeo de agua para trasvase de pescado en barcos y piscifactorías.

*Transparent hose made by plasticized vinylic compound with an orange anti-shock rigid PVC spiral and textile reinforcement. Completely smooth inside and with an external PVC corrugated helix. The clear wall is intended to easily detect the media transported as well as the exposed spiral allows less resistance to dragging. The textile braid reinforcement allows for a higher working pressure. Light and flexible, the hose is therefore suitable for applications where a good resistance to high pressures is required. Food grade wall and spiral, according to EU 10/2011(classes A, B, C, D1). Banding coil available on request.*

- Excellent solution for suction and delivery of water, conceived to resist at the highest pressures, even in severe conditions.

*The larger sizes are ideally suited for fish handling (both wall and spiral are food grade), on the rental pumping systems and for water discharge.*

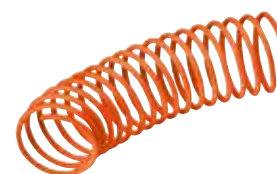
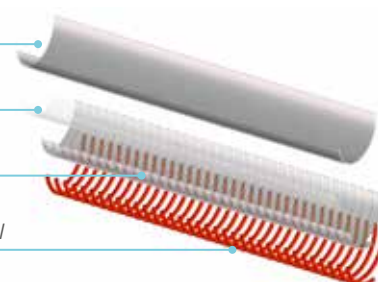


Tubo de PVC-P / PVC hose

Refuerzo textil de poliéster / Textile reinforcement

Tubo de PVC-P / PVC hose

Espiral de PVC rígido antichoque / Anti-shock rigid PVC spiral



Espiral para facilitar el racorado con abrazadera bajo pedido (Cod. SC WT)

*Banding coil available (Code SC WT)*

## Ficha técnica / Technical data

| Código         | Ø Int.      | Ø Est. | Min esp.     | Max esp.     | Peso   | P.T.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           | Lg. espiral       |
|----------------|-------------|--------|--------------|--------------|--------|-------|--------------------|-----------------|------------|----------------|-------------------|
| Code           | Ø Int.      | Ø Out. | Min wall th. | Max wall th. | Weight | W.P.  | Vac.               | Bending         | Coil lgth. | Vol.           | Banding coil Lgth |
|                | mm/inch     | mm     | mm           | mm           | g/m    | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> | mm                |
| WT010380000000 | 38,1/1.1/2" | 51,5   | 3,0          | 6,7          | 725    | 10    | 9,5                | 90              | 30         | 0,134          | 153               |
| WT010400000000 | 40          | 53,4   | 3,0          | 6,7          | 745    | 8     | 9,5                | 100             | 30         | 0,139          | 152               |
| WT010500000000 | 50          | 65,4   | 3,0          | 7,7          | 1085   | 7     | 9,5                | 160             | 30         | 0,251          | 180               |
| WT010508000000 | 50,8/2"     | 66,2   | 3,0          | 7,7          | 1100   | 7     | 9,5                | 160             | 30         | 0,254          | 180               |
| WT010600000000 | 60          | 76,8   | 3,0          | 8,4          | 1230   | 7     | 9,5                | 180             | 30         | 0,332          | 203               |
| WT010760000000 | 76,2/3"     | 95,8   | 3,5          | 9,8          | 1900   | 6     | 9                  | 200             | 30         | 0,414          | 225               |
| WT010800000000 | 80          | 100,8  | 3,5          | 10,4         | 2180   | 6     | 9                  | 210             | 30         | 0,581          | 225               |
| WT011000000000 | 100         | 120,8  | 3,5          | 10,4         | 2580   | 6     | 9                  | 300             | 30         | 0,928          | 240               |
| WT011020000000 | 101,6/4"    | 122,6  | 3,5          | 10,5         | 2655   | 6     | 9                  | 300             | 30         | 0,942          | 240               |
| WT011270000000 | 127/5"      | 152,0  | 5,0          | 12,5         | 3965   | 5     | 9                  | 380             | 30         | 1,556          | 292,5             |
| WT011520000000 | 152,4/6"    | 180,0  | 5,0          | 13,8         | 5225   | 5     | 8                  | 450             | 20         | 1,440          | 322,5             |
| WT012030000000 | 203,2/8"    | 236,0  | 6,0          | 16,4         | 8245   | 4     | 8                  | 600             | 10         | 1,888          | 375               |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# PLUTONE PW

(Cod. PW)



Tubo de color negro con raya amarilla, fabricado en un compuesto especial de PVC-P, con refuerzo textil de poliéster y una espiral de acero. Muy flexible, liso y manejable, resistente a bajas temperaturas. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Aspiración y transporte de agua y líquidos.

*Black hose with yellow stripe made by a special PVC-P compound, with steel helix and polyester textile reinforcement. Smooth, flexible and easy to handle, it resists at low temperatures. It can be made conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

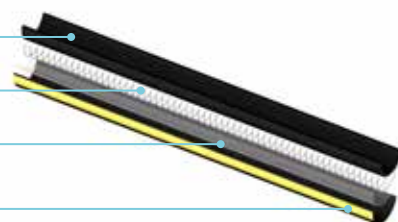
- Suction and discharge of water and liquids

Tubo de PVC-P / PVC hose

Espiral en acero / Steel spiral

Refuerzo textil de poliéster / Textile reinforcement

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø Int.  | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|---------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.  | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| PW010200029000 | 20*     | 29     | 475    | 14    | 42    | 10                 | 80              | 60         | 0,106          |
| PW010250035000 | 25      | 35     | 655    | 12    | 36    | 10                 | 100             | 60         | 0,146          |
| PW010300040000 | 30      | 40     | 765    | 11    | 33    | 9                  | 120             | 60         | 0,184          |
| PW010320043000 | 32*     | 43     | 890    | 11    | 33    | 9                  | 130             | 60         | 0,214          |
| PW010350046000 | 35*     | 46     | 960    | 11    | 33    | 9                  | 140             | 60         | 0,225          |
| PW010380049000 | 38*     | 49     | 1035   | 10    | 30    | 9                  | 150             | 30         | 0,198          |
| PW010400051000 | 40      | 51     | 1080   | 10    | 30    | 9                  | 160             | 30         | 0,202          |
| PW010450058000 | 45*     | 58     | 1505   | 10    | 30    | 9                  | 180             | 30         | 0,241          |
| PW010500063000 | 50      | 63     | 1685   | 10    | 30    | 8                  | 250             | 30         | 0,286          |
| PW010600074000 | 60*     | 74     | 2115   | 10    | 30    | 8                  | 300             | 30         | 0,363          |
| PW010630077000 | 63*     | 77     | 2210   | 10    | 30    | 8                  | 320             | 30         | 0,379          |
| PW010760091000 | 76*     | 91     | 2730   | 10    | 30    | 7                  | 380             | 30         | 0,603          |
| PW010800095000 | 80*     | 95     | 2840   | 9     | 27    | 7                  | 400             | 20         | 0,498          |
| PW011020118000 | 102*/4" | 118    | 3890   | 7     | 21    | 7                  | 510             | 20         | 0,801          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# GIOVE SE

(Cod. GI 06)



**Tubo de PVC-P azul claro con espiral de refuerzo de PVC rígido antichoque color marfil;** superficie interna lisa y externa semi lisa; más robusto que un Apollo, mantiene una buena flexibilidad incluso a bajas temperaturas. Muy resistente al aplastamiento, a la abrasión, a los agentes atmosféricos y a numerosas substancias químicas. Versión antiestática (con hilo de cobre) según pedido.

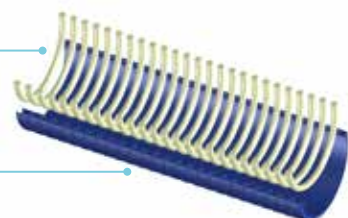
- Agricultura, industria, descarga de aguas negras: aspiración e impulsión de líquidos.

*Light blue PVC-P hose reinforced with an anti-shock rigid PVC spiral. Better than Apollo hose, it is made with a special formulation particularly suitable to be used at low temperatures. Inside surface smooth, light corrugation outside. Strong and flexible, resistant to crushing, abrasion, atmospheric agents and most chemicals. Antistatic version with copper wire available on request.*

- Suction and delivery of water, slurry, mud, mixtures of wood, acids, latex, grains and other materials. Used in agriculture and industry. Particularly suitable for use on tank trucks.

Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.  | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo                        | Vol.           |
|----------------|---------|--------------|--------------|--------|-------|-------|--------------------|-----------------|----------------------------------|----------------|
| Code           | Ø Int.  | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth.                       | Vol.           |
|                | mm/inch | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m                                | m <sup>3</sup> |
| GI060250000000 | 25*     | 4,4          | 4,7          | 530    | 8,0   | 24    | 10                 | 130             | 50                               | 0,110          |
| GI060300000000 | 30*     | 4,5          | 4,8          | 640    | 8,0   | 24    | 10                 | 150             | 50                               | 0,127          |
| GI060320000000 | 31,8*   | 4,5          | 4,8          | 670    | 8,0   | 24    | 10                 | 160             | 50                               | 0,132          |
| GI060350000000 | 35*     | 4,5          | 4,9          | 720    | 8,0   | 24    | 10                 | 170             | 50                               | 0,143          |
| GI060380000000 | 38,1*   | 4,5          | 4,9          | 780    | 7,0   | 21    | 10                 | 200             | 50                               | 0,184          |
| GI060400000000 | 40*     | 4,5          | 4,9          | 820    | 7,0   | 21    | 10                 | 210             | 50                               | 0,191          |
| GI060450000000 | 45*     | 4,8          | 5,2          | 980    | 7,0   | 21    | 10                 | 230             | 50                               | 0,248          |
| GI060500000000 | 50*     | 5,2          | 5,6          | 1180   | 7,0   | 21    | 10                 | 260             | 50                               | 0,264          |
| GI060520000000 | 50,8*   | 5,2          | 5,6          | 1190   | 7,0   | 21    | 10                 | 260             | 50                               | 0,268          |
| GI060550000000 | 55*     | 5,5          | 5,9          | 1370   | 6,0   | 18    | 10                 | 280             | 50                               | 0,385          |
| GI060600000000 | 60*     | 5,7          | 6,2          | 1570   | 6,0   | 18    | 10                 | 320             | 50                               | 0,417          |
| GI060630000000 | 63,5*   | 5,7          | 6,2          | 1650   | 5,0   | 15    | 10                 | 330             | 50                               | 0,437          |
| GI060700000000 | 70*     | 5,8          | 6,3          | 1790   | 5,0   | 15    | 10                 | 360             | 50                               | 0,714          |
| GI060760000000 | 76,2*   | 5,8          | 6,3          | 1940   | 4,5   | 13,5  | 10                 | 400             | 50                               | 0,767          |
| GI060800000000 | 80      | 6,1          | 6,6          | 2120   | 4,5   | 13,5  | 10                 | 430             | 30                               | 0,671          |
| GI060900000000 | 90      | 6,4          | 6,9          | 2500   | 4,5   | 13,5  | 10                 | 470             | 30                               | 0,747          |
| GI061000000000 | 100*    | 7,3          | 7,9          | 3190   | 4,0   | 12    | 9                  | 510             | 30                               | 0,889          |
| GI061020000000 | 102     | 7,3          | 7,9          | 3250   | 4,0   | 12    | 9                  | 510             | 30                               | 0,905          |
| GI061050000000 | 105*    | 7,3          | 7,9          | 3340   | 4,0   | 12    | 9                  | 520             | 30                               | 0,928          |
| GI061100000000 | 110*    | 7,4          | 8,0          | 3520   | 4,0   | 12    | 9                  | 550             | 30                               | 0,968          |
| GI061200000000 | 120*    | 7,5          | 8,1          | 3880   | 4,0   | 12    | 9                  | 600             | 30                               | 1,395          |
| GI061270000000 | 127*    | 7,5          | 8,1          | 4090   | 3,5   | 10,5  | 9                  | 640             | 30                               | 1,466          |
| GI061500000000 | 151,5*  | 9,2          | 10,0         | 6120   | 3,0   | 9     | 9                  | 770             | 20                               | 1,372          |
| GI062000000000 | 200*    | 10,9         | 12,6         | 9770   | 2,0   | 6     | 7                  | 1000            | 10                               | 2,180          |
| GI062030000000 | 203,2*  | 11,0         | 12,7         | 10020  | 2,0   | 6     | 7                  | 1000            | 10                               | 2,213          |
| GI062500000000 | 250*    | 11,4         | 13,2         | 12770  | 1,5   | 4,5   | 7                  | 1700            | 10 m pz. dritti<br>10 m straight | 0,764          |
| GI062540000000 | 254*    | 11,4         | 13,2         | 12960  | 1,5   | 4,5   | 7                  | 1700            | 10 m pz. dritti<br>10 m straight | 0,786          |
| GI063000000000 | 300*    | 11,7         | 13,6         | 15740  | 1,0   | 3     | 5                  | 2200            | 10 m pz. dritti<br>10 m straight | 1,071          |
| GI063050000000 | 304,8*  | 11,8         | 13,7         | 16130  | 1,0   | 3     | 5                  | 2200            | 10 m pz. dritti<br>10 m straight | 1,104          |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# NETTUNO SE

(Cod. NX NF)



**Tubo transparente de PVC-P con espiral de refuerzo de PVC rígido antichoque color marfil;** superficie interna lisa, y superficie externa semilisa; óptima flexibilidad y resistencia a la carga de trabajo. Versión antiestática (con hilo de cobre) según pedido.

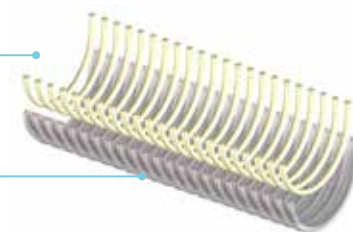
- Aspiración y transporte de líquidos.

*Transparent PVC-P hose with an ivory anti-shock rigid PVC spiral; smooth inside to ensure optimization of flow properties, slightly corrugated outside. Very flexible and resistant to loads. Antistatic version with copper wire available on request.*

- Transport of liquids in general.

Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo                        |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|----------------------------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth.                       |
|                | mm/inch     | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m                                |
| NXNF0130000000 | 13*         | 2,3          | 2,5          | 140    | 3,5   | 10,5  | 8                  | 75              | 50                               |
| NXNF0160000000 | 1*6         | 2,5          | 2,8          | 180    | 3,3   | 10    | 8                  | 85              | 50                               |
| NXNF0190000000 | 19,1/3/4"   | 2,7          | 3,0          | 230    | 3,3   | 10    | 8                  | 95              | 50                               |
| NXNF0200000000 | 20          | 2,7          | 3,0          | 240    | 3,3   | 10    | 8                  | 95              | 50                               |
| NXNF0220000000 | 2*2         | 2,7          | 3,0          | 260    | 3,3   | 10    | 8                  | 100             | 50                               |
| NXNF0250000000 | 25          | 2,7          | 3,0          | 300    | 3,3   | 10    | 8                  | 110             | 50                               |
| NXNF0300000000 | 30*         | 2,7          | 3,0          | 350    | 3,3   | 10    | 8                  | 130             | 50                               |
| NXNF0320000000 | 31,8/1.1/4" | 2,8          | 3,1          | 390    | 3,3   | 10    | 8                  | 140             | 50                               |
| NXNF0350000000 | 35*         | 2,8          | 3,5          | 440    | 3,3   | 10    | 7                  | 150             | 50                               |
| NXNF0380000000 | 38,1/1.1/2" | 3,0          | 3,8          | 520    | 3,3   | 10    | 7                  | 160             | 50                               |
| NXNF0400000000 | 40          | 3,0          | 3,8          | 550    | 3,3   | 10    | 7                  | 170             | 50                               |
| NXNF0450000000 | 45*         | 3,2          | 4,1          | 670    | 3,3   | 10    | 7                  | 180             | 50                               |
| NXNF0500000000 | 50*         | 3,4          | 4,5          | 810    | 3,3   | 10    | 7                  | 200             | 50                               |
| NXNF0515000000 | 51,5*       | 3,4          | 4,5          | 830    | 3,3   | 10    | 7                  | 210             | 50                               |
| NXNF0520000000 | 50,8/2"     | 3,4          | 4,5          | 820    | 3,3   | 10    | 7                  | 200             | 50                               |
| NXNF0550000000 | 55*         | 3,4          | 4,7          | 910    | 3,3   | 10    | 7                  | 220             | 50                               |
| NXNF0600000000 | 6*0         | 3,4          | 4,7          | 990    | 3,3   | 10    | 7                  | 240             | 50                               |
| NXNF0630000000 | 63,5/2.1/2" | 3,5          | 4,7          | 1060   | 3,3   | 10    | 7                  | 250             | 50                               |
| NXNF0650000000 | 65*         | 3,6          | 4,8          | 1120   | 3,3   | 10    | 7                  | 250             | 50                               |
| NXNF0700000000 | 70/2.3/4"   | 3,7          | 5,1          | 1220   | 3,3   | 10    | 7                  | 270             | 50                               |
| NXNF0760000000 | 76,2/3"     | 3,9          | 5,3          | 1390   | 3,3   | 10    | 7                  | 290             | 50                               |
| NXNF0800000000 | 80*         | 4,2          | 5,6          | 1540   | 3,0   | 9     | 7                  | 310             | 50                               |
| NXNF0900000000 | 90*         | 4,5          | 6,0          | 1880   | 3,0   | 9     | 6                  | 360             | 30                               |
| NXNF1000000000 | 100*        | 4,8          | 6,4          | 2200   | 3,0   | 9     | 6                  | 400             | 30                               |
| NXNF1020000000 | 102/4"      | 4,8          | 6,4          | 2240   | 3,0   | 9     | 6                  | 400             | 30                               |
| NXNF1100000000 | 110*        | 5,1          | 6,8          | 2570   | 3,0   | 9     | 5                  | 440             | 30                               |
| NXNF1200000000 | 120         | 5,1          | 6,8          | 2790   | 2,0   | 6     | 5                  | 550             | 30                               |
| NXNF1270000000 | 127*/5"     | 5,2          | 7,0          | 3040   | 2,0   | 6     | 5                  | 580             | 30                               |
| NXNF1500000000 | 151,5*      | 6,2          | 8,3          | 4390   | 2,0   | 6     | 5                  | 660             | 20                               |
| NXNF1520000000 | 152,4*/6"   | 6,2          | 8,3          | 4420   | 2,0   | 6     | 5                  | 660             | 20                               |
| NXNF2000000000 | 20*0        | 6,5          | 10,0         | 6420   | 1,5   | 4,5   | 4                  | 850             | 10                               |
| NXNF2030000000 | 203,2*/8"   | 6,5          | 10,0         | 6520   | 1,5   | 4,5   | 4                  | 850             | 10                               |
| NXNF2500000000 | 250*        | 6,8          | 10,5         | 8470   | 1,2   | 3,5   | 4                  | 1500            | 10 m pz. dritti<br>10 m straight |
| NXNF3000000000 | 300*        | 7,3          | 11,3         | 11120  | 0,8   | 2,5   | 4                  | 1700            | 10 m pz. dritti<br>10 m straight |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity



# SATURNO L (Cod. XL 01)



**Tubo de PVC-P verde transparente con espiral de refuerzo de PVC rígido a prueba de choques de color marfil.** Superficie interna lisa y superficie externa semilisa. Ligero y maneable. Muy resistente al aplastamiento, a los agentes atmosféricos y a numerosas substancias químicas.

• Para riego, aspiración y transporte de líquidos en general y soluciones usadas en el sector agrícola.

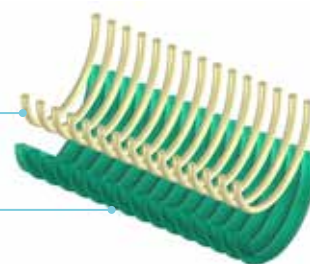
*Transparent green PVC-P hose reinforced with an ivory anti-shock rigid PVC spiral. Inside surface smooth, light corrugation outside. Strong and flexible, resistant to crushing, atmospheric agents and most chemicals.*

• *Excellent in agriculture, for irrigation and suction of liquids and fertilizers; suitable to be used on slurry machines.*

Espiral de PVC rígido antichoque

Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|--|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |  |
|                | mm/inch     | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |  |
| XL010190000000 | 19,1*/3/4"  | 2,2          | 2,9          | 200    | 5,0   | 15    | 6                  | 110             | 50         | 0,046          |  |
| XL010200000000 | 20          | 2,2          | 2,9          | 210    | 5,0   | 15    | 6                  | 110             | 50         | 0,048          |  |
| XL010220000000 | 22*         | 2,3          | 3,0          | 240    | 5,0   | 15    | 6                  | 130             | 50         | 0,061          |  |
| XL010250000000 | 25          | 2,3          | 3,0          | 270    | 5,0   | 15    | 6                  | 140             | 50         | 0,078          |  |
| XL010255000000 | 25,5*       | 2,3          | 3,0          | 280    | 5,0   | 15    | 6                  | 140             | 50         | 0,079          |  |
| XL010300000000 | 30          | 2,3          | 3,1          | 330    | 5,0   | 15    | 6                  | 170             | 50         | 0,116          |  |
| XL010320000000 | 31,8/1.1/4" | 2,4          | 3,2          | 360    | 5,0   | 15    | 6                  | 180             | 50         | 0,122          |  |
| XL010325000000 | 32,5*       | 2,4          | 3,2          | 370    | 5,0   | 15    | 6                  | 180             | 50         | 0,124          |  |
| XL010350000000 | 35*         | 2,5          | 3,3          | 410    | 5,0   | 15    | 6                  | 195             | 50         | 0,133          |  |
| XL010380000000 | 38,1/1.1/2" | 2,6          | 3,4          | 460    | 5,0   | 15    | 6                  | 210             | 50         | 0,172          |  |
| XL010390000000 | 39*         | 2,6          | 3,4          | 470    | 5,0   | 15    | 6                  | 215             | 50         | 0,176          |  |
| XL010400000000 | 40          | 2,6          | 3,5          | 490    | 5,0   | 15    | 6                  | 220             | 50         | 0,180          |  |
| XL010450000000 | 45*         | 2,7          | 3,6          | 570    | 5,0   | 15    | 6                  | 250             | 50         | 0,234          |  |
| XL010500000000 | 50          | 3,0          | 4,0          | 710    | 5,0   | 15    | 6                  | 270             | 50         | 0,251          |  |
| XL010520000000 | 50,8/2"     | 3,0          | 4,0          | 720    | 5,0   | 15    | 6                  | 270             | 50         | 0,254          |  |
| XL010550000000 | 55*         | 3,0          | 4,0          | 780    | 5,0   | 15    | 6                  | 310             | 50         | 0,363          |  |
| XL010570000000 | 57*         | 3,0          | 4,0          | 800    | 5,0   | 15    | 6                  | 310             | 50         | 0,374          |  |
| XL010600000000 | 60          | 3,0          | 4,2          | 870    | 5,0   | 15    | 6                  | 330             | 50         | 0,394          |  |
| XL010630000000 | 63,5/2.1/2" | 3,0          | 4,2          | 920    | 5,0   | 15    | 6                  | 350             | 50         | 0,414          |  |
| XL010650000000 | 65*         | 3,1          | 4,3          | 970    | 5,0   | 15    | 6                  | 360             | 50         | 0,636          |  |
| XL010700000000 | 70*/2.3/4"  | 3,2          | 4,5          | 1050   | 4,0   | 12    | 6                  | 450             | 50         | 0,683          |  |
| XL010750000000 | 75*         | 3,3          | 4,6          | 1160   | 4,0   | 12    | 6                  | 500             | 50         | 0,727          |  |
| XL010760000000 | 76,2/3"     | 3,3          | 4,6          | 1180   | 4,0   | 12    | 6                  | 500             | 50         | 0,738          |  |
| XL010800000000 | 80          | 3,6          | 5,0          | 1350   | 4,0   | 12    | 6                  | 550             | 50         | 0,778          |  |
| XL010900000000 | 90*         | 4,2          | 6,0          | 1870   | 3,0   | 9     | 6                  | 630             | 30         | 0,588          |  |
| XL011000000000 | 100         | 4,6          | 6,4          | 2210   | 3,0   | 9     | 6                  | 710             | 30         | 0,866          |  |
| XL011020000000 | 102/4"      | 4,6          | 6,4          | 2250   | 3,0   | 9     | 6                  | 710             | 30         | 0,882          |  |
| XL011100000000 | 110*        | 5,0          | 6,7          | 2560   | 3,0   | 9     | 6                  | 720             | 30         | 1,264          |  |
| XL011200000000 | 120*        | 5,0          | 6,8          | 2810   | 3,0   | 9     | 6                  | 730             | 30         | 1,368          |  |
| XL011270000000 | 127*/5"     | 5,1          | 6,9          | 3030   | 3,0   | 9     | 6                  | 740             | 30         | 1,442          |  |
| XL011500000000 | 151,5*      | 5,9          | 7,8          | 4160   | 3,0   | 9     | 6                  | 800             | 20         | 1,337          |  |
| XL011520000000 | 152,4*/6"   | 5,9          | 7,8          | 4180   | 3,0   | 9     | 6                  | 800             | 20         | 1,344          |  |
| XL012000000000 | 200*        | 6,5          | 10,0         | 6510   | 2,0   | 6     | 4,5                | 1000            | 10         | 1,760          |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

**TE** disponible en stock / available on stock

# SATURNO L SE

(Cod. XL 06)



3 variantes de color  
3 colour versions



col. 36



col. 27



col. 40

**Tubo de PVC-P verde transparente con espiral de refuerzo de PVC rígido a prueba de choques de color verde.** Superficie interna lisa y superficie externa semilisa. Mantiene una buena flexibilidad incluso a bajas temperaturas. Ligero y maneable. Muy resistente al aplastamiento, a la abrasión, a los agentes atmosféricos y a numerosas sustancias químicas.

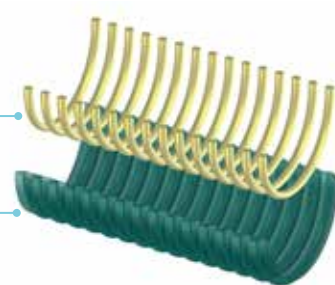
• Para riego, aspiración y transporte de líquidos en general y soluciones usadas en el sector agrícola.

*Transparent green PVC-P hose reinforced with a green anti-shock rigid PVC spiral. Inside surface smooth, light corrugation outside. **Very flexible even at low temperatures.** Strong, resistant to crushing, atmospheric agents and most chemicals.*

• *Excellent in agriculture, for irrigation and suction of liquids; suitable to be used on slurry machines. Different colour versions available on request.*

Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch     | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| XL060190000000 | 19,1*/3/4"  | 2,2          | 2,9          | 200    | 5,0   | 15    | 6                  | 110             | 50         | 0,046          |
| XL060200000000 | 20          | 2,2          | 2,9          | 210    | 5,0   | 15    | 6                  | 110             | 50         | 0,048          |
| XL060220000000 | 22*         | 2,3          | 3,0          | 240    | 5,0   | 15    | 6                  | 130             | 50         | 0,061          |
| XL060250000000 | 25          | 2,3          | 3,0          | 270    | 5,0   | 15    | 6                  | 140             | 50         | 0,078          |
| XL060255000000 | 25,5*       | 2,3          | 3,0          | 270    | 5,0   | 15    | 6                  | 140             | 50         | 0,079          |
| XL060300000000 | 30          | 2,3          | 3,1          | 320    | 5,0   | 15    | 6                  | 170             | 50         | 0,116          |
| XL060320000000 | 31,8/1.1/4" | 2,4          | 3,2          | 360    | 5,0   | 15    | 6                  | 180             | 50         | 0,122          |
| XL060325000000 | 32,5*       | 2,4          | 3,2          | 370    | 5,0   | 15    | 6                  | 180             | 50         | 0,124          |
| XL060350000000 | 35*         | 2,5          | 3,3          | 400    | 5,0   | 15    | 6                  | 195             | 50         | 0,133          |
| XL060380000000 | 38,1/1.1/2" | 2,6          | 3,4          | 450    | 5,0   | 15    | 6                  | 210             | 50         | 0,172          |
| XL060390000000 | 39*         | 2,6          | 3,4          | 460    | 5,0   | 15    | 6                  | 215             | 50         | 0,176          |
| XL060400000000 | 40          | 2,6          | 3,5          | 480    | 5,0   | 15    | 6                  | 220             | 50         | 0,180          |
| XL060450000000 | 45*         | 2,7          | 3,6          | 560    | 5,0   | 15    | 6                  | 250             | 50         | 0,226          |
| XL060500000000 | 50          | 3,0          | 4,0          | 700    | 5,0   | 15    | 6                  | 270             | 50         | 0,251          |
| XL060520000000 | 50,8/2"     | 3,0          | 4,0          | 710    | 5,0   | 15    | 6                  | 270             | 50         | 0,254          |
| XL060550000000 | 55*         | 3,0          | 4,0          | 760    | 5,0   | 15    | 6                  | 310             | 50         | 0,454          |
| XL060570000000 | 57*         | 3,0          | 4,0          | 790    | 5,0   | 15    | 6                  | 310             | 50         | 0,374          |
| XL060600000000 | 60          | 3,0          | 4,2          | 860    | 5,0   | 15    | 6                  | 330             | 50         | 0,394          |
| XL060630000000 | 63,5/2.1/2" | 3,0          | 4,2          | 910    | 5,0   | 15    | 6                  | 350             | 50         | 0,414          |
| XL060650000000 | 65*         | 3,1          | 4,3          | 960    | 5,0   | 15    | 6                  | 360             | 50         | 0,636          |
| XL060700000000 | 70*/2.3/4"  | 3,2          | 4,5          | 1040   | 4,0   | 12    | 6                  | 450             | 50         | 0,683          |
| XL060750000000 | 75*         | 3,3          | 4,6          | 1140   | 4,0   | 12    | 6                  | 500             | 50         | 0,727          |
| XL060760000000 | 76,2/3"     | 3,3          | 4,6          | 1160   | 4,0   | 12    | 6                  | 500             | 50         | 0,738          |
| XL060800000000 | 80          | 3,6          | 5,0          | 1330   | 4,0   | 12    | 6                  | 550             | 50         | 0,922          |
| XL060900000000 | 90*         | 4,2          | 6,0          | 1840   | 3,0   | 9     | 6                  | 630             | 30         | 0,588          |
| XL061000000000 | 100         | 4,6          | 6,4          | 2180   | 3,0   | 9     | 6                  | 710             | 30         | 0,866          |
| XL061020000000 | 102/4"      | 4,6          | 6,4          | 2220   | 3,0   | 9     | 6                  | 710             | 30         | 0,882          |
| XL061100000000 | 110*        | 5,0          | 6,7          | 2530   | 3,0   | 9     | 6                  | 720             | 30         | 1,264          |
| XL061200000000 | 120*        | 5,0          | 6,8          | 2770   | 3,0   | 9     | 6                  | 730             | 30         | 1,368          |
| XL061250000000 | 125*        | 5,1          | 6,9          | 2950   | 3,0   | 9     | 6                  | 740             | 30         | 1,421          |
| XL061270000000 | 127*/5"     | 5,1          | 6,9          | 2990   | 3,0   | 9     | 6                  | 740             | 30         | 1,442          |
| XL061500000000 | 151,5*      | 5,9          | 7,8          | 4100   | 3,0   | 9     | 6                  | 800             | 20         | 1,337          |
| XL061520000000 | 152,4*/6"   | 5,9          | 7,8          | 4120   | 3,0   | 9     | 6                  | 800             | 20         | 1,344          |
| XL062000000000 | 200*        | 6,5          | 10,0         | 6420   | 2,0   | 6     | 4,5                | 1000            | 10         | 1,760          |
| XL062030000000 | 203,2*/8"   | 6,5          | 10,0         | 6520   | 2,0   | 6     | 4,5                | 1000            | 10         | 1,786          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# SATURNO IDRO SE (Cod. SI 06)



**Tubo transparente de PVC-P con espiral de refuerzo de PVC rígido a prueba de choques transparente.** Superficie interna y externa perfectamente lisas para favorecer el paso de las substancias. Transparente para una fácil identificación. Muy robusto y flexible.

- Para aplicaciones que requieren resistencia y durabilidad; en el sector náutico, como manguera sanitaria, para la descarga de agua y líquidos.

*Transparent PVC-P hose reinforced with a clear anti-shock PVC-U spiral. Smooth inside and outside to ensure optimization of flow properties. Transparent for an easy detection. Strong and flexible.*

- For heavy duty applications, where durability and resistance are requested; used as sanitary hose in marine industry.

Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø Int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| SI060160000000 | 16*          | 3,3          | 3,4          | 250    | 6,0   | 18    | 10                 | 40              | 30         | 0,030          |
| SI060200000000 | 20*          | 3,3          | 3,4          | 300    | 6,0   | 18    | 10                 | 50              | 30         | 0,037          |
| SI060250000000 | 25*          | 3,4          | 3,5          | 370    | 6,0   | 18    | 10                 | 60              | 30         | 0,049          |
| SI060300000000 | 30*          | 3,4          | 3,5          | 430    | 5,0   | 15    | 10                 | 80              | 30         | 0,080          |
| SI060320000000 | 31,8*/1.1/4" | 3,4          | 3,5          | 460    | 5,0   | 15    | 10                 | 80              | 30         | 0,084          |
| SI060380000000 | 38,1*/1.1/2" | 3,4          | 3,5          | 540    | 5,0   | 15    | 10                 | 100             | 30         | 0,097          |
| SI060400000000 | 40*          | 3,4          | 3,5          | 560    | 5,0   | 15    | 10                 | 100             | 30         | 0,102          |
| SI060450000000 | 45*          | 3,9          | 4,0          | 730    | 5,0   | 15    | 10                 | 110             | 30         | 0,136          |
| SI060500000000 | 50*          | 3,9          | 4,0          | 810    | 5,0   | 15    | 10                 | 130             | 30         | 0,148          |
| SI060515000000 | 51,5*        | 3,9          | 4,0          | 830    | 5,0   | 15    | 10                 | 130             | 30         | 0,152          |
| SI060650000000 | 65*          | 3,9          | 4,1          | 1040   | 4,0   | 12    | 10                 | 160             | 30         | 0,234          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# NAUTILUS ODORSAFE (Cod. LU 01)



**Tubo blanco de PVC-P con espiral de refuerzo de PVC rígido a prueba de choques.** Formulación especial a prueba de olores. Superficie interna y externa perfectamente lisas para favorecer el paso de las substancias. Resistente al aplastamiento y muy flexible.

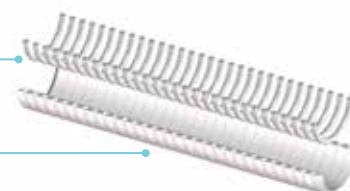
- Manguera sanitaria, para la descarga de agua y líquidos

*White PVC-P hose reinforced with an anti-shock rigid PVC spiral. Special odourless formulation against permeation of smells. Inside and outside completely smooth to enhance the flow properties; crash proof and very flexible.*

- Waste disposal, suction and discharge of liquids, specially used on marine sanitation systems.

Espiral de PVC rígido antichoque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø Int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| LU010160021000 | 16*          | 2,4          | 2,6          | 180    | 8,0   | 24    | 9                  | 78              | 30         | 0,041          |
| LU010200025000 | 20*          | 2,4          | 2,6          | 220    | 8,0   | 24    | 9                  | 78              | 30         | 0,048          |
| LU010250031000 | 25*          | 2,9          | 3,1          | 340    | 6,0   | 18    | 9                  | 102             | 30         | 0,040          |
| LU010300036500 | 30*          | 3,0          | 3,2          | 410    | 6,0   | 18    | 9                  | 102             | 30         | 0,047          |
| LU010320038500 | 32*          | 3,0          | 3,2          | 440    | 6,0   | 18    | 9                  | 102             | 30         | 0,049          |
| LU010380046000 | 38,1*/1.1/2" | 3,9          | 4,1          | 680    | 6,0   | 18    | 9                  | 190             | 30         | 0,059          |
| LU010400048000 | 40*          | 3,9          | 4,1          | 710    | 6,0   | 18    | 9                  | 190             | 30         | 0,062          |
| LU010500061000 | 50*          | 5,3          | 5,5          | 1240   | 6,0   | 18    | 9                  | 190             | 30         | 0,078          |
| LU010508061800 | 50,8*/2"     | 5,3          | 5,5          | 1260   | 6,0   | 18    | 9                  | 190             | 30         | 0,079          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# ARIANNA 20 BAR (Cod. AV)



**Tubo flexible de PVC-P reforzado con hilo de poliéster.** De color negro con una tira identificativa beige, resiste a los agentes atmosféricos y a gran parte de los productos químicos.

- En la agricultura, se usa para la fumigación a presión de productos fungicidas, y productos a base de aceites minerales. Aire comprimido.

**Black flexible PVC-P hose with an identificative hazel-brown stripe, reinforced with a braided polyester thread.** Resistant to most chemicals and weather agents.

- In agriculture, delivery pressure hose of fungicide solutions also containing mineral oils for agriculture spraying. Compressed air.



Tubo de PVC-P / PVC hose

Refuerzo textil de poliéster / Textile reinforcement

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código                                                                                                                                                         | Ø Int. | Ø Est. | Peso   | P.T.  | P.R.  | R. de curvatura | Lg. Rollo  | Vol.  |      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|-------|-------|-----------------|------------|-------|------|
| Code                                                                                                                                                           | Ø Int. | Ø Out. | Weight | W.P.  | B.P.  | Bending         | Coil lgth. | Vol.  |      |
|                                                                                                                                                                | mm     | mm     | g/m    | [bar] | [bar] | mm              | m          | m³    |      |
| AV010080013000                                                                                                                                                 | 8      | 13     | 106    | 20    | 60    | 40              | 100        | 0,025 |      |
| AV010100015000                                                                                                                                                 | 10     | 15     | 125    | 20    | 60    | 50              | 100        | 0,037 |      |
| AV010130019000                                                                                                                                                 | 13     | 19     | 195    | 20    | 60    | 70              | 100        | 0,061 | 50 m |
| AV010160023000                                                                                                                                                 | 16     | 23     | 280    | 20    | 60    | 80              | 50         | 0,049 |      |
| AV010190026500                                                                                                                                                 | 19     | 26,5   | 345    | 20    | 60    | 100             | 50         | 0,058 |      |
| AV010250033500                                                                                                                                                 | 25     | 33,5   | 503    | 20    | 60    | 130             | 50         | 0,090 |      |
| *Disponible bajo demanda. Consulte con ventas para más información y cantidades / *Available on request, contact our sales office for more info and quantities |        |        |        |       |       |                 |            |       |      |
| Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity         |        |        |        |       |       |                 |            |       |      |

disponible en stock / available on stock

# ARIANNA 40 BAR

(Cod. AQ)



**Tubo flexible de PVC-P reforzado con hilo de poliéster.** De color negro con una tira identificativa azul, resiste a los agentes atmosféricos y a gran parte de los productos químicos.

- En la agricultura, se usa para la fumigación a presión de productos fungicidas, y productos a base de aceites minerales. Aire comprimido.

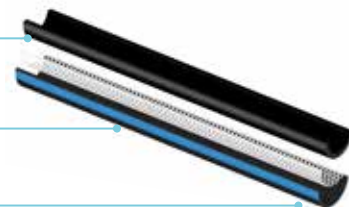
*Black flexible PVC-P hose with an identificative light blue stripe, reinforced with a braided polyester thread. Resistant to most chemicals and weather agents.*

- In agriculture, delivery pressure hose of fungicide solutions also containing mineral oils for agriculture spraying. Compressed air.

Tubo de PVC-P / PVC hose

Refuerzo textil de poliéster / Textile reinforcement

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

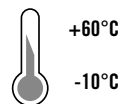
| Código         | Ø Int. | Ø Est. | Peso   | P.T.  | P.R.  | R. de curvatura | Lg. Rollo  | Vol.  |  |
|----------------|--------|--------|--------|-------|-------|-----------------|------------|-------|---------------------------------------------------------------------------------------|
| Code           | Ø Int. | Ø Out. | Weight | W.P.  | B.P.  | Bending         | Coil lgth. | Vol.  |                                                                                       |
|                | mm     | mm     | g/m    | [bar] | [bar] | mm              | m          | m³    |                                                                                       |
| AQ010080014000 | 8      | 14     | 132    | 40    | 120   | 40              | 100        | 0,032 |                                                                                       |
| AQ010100016500 | 10     | 16,5   | 175    | 40    | 120   | 50              | 100        | 0,041 |                                                                                       |
| AQ010130021000 | 13     | 21     | 275    | 40    | 120   | 70              | 100        | 0,076 |                                                                                       |
| AQ010160024000 | 16     | 24     | 324    | 40    | 120   | 80              | 50         | 0,050 |                                                                                       |
| AQ010190028000 | 19*    | 28     | 428    | 40    | 120   | 100             | 50         | 0,067 |                                                                                       |

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 disponible en stock / available on stock

# ARIANNA 80 BAR (Cod. AO)



**Tubo flexible de PVC-P reforzado con hilo de poliéster doble.** De color negro con una tira identificativa azul oscuro, resiste a los agentes atmosféricos y a gran parte de los productos químicos.

- En la agricultura, se usa para la fumigación a presión de productos fungicidas, y productos a base de aceites minerales. Aire comprimido.

**Black flexible PVC-P hose with an identificative blue stripe, reinforced with a double braided polyester thread.** Resistant to most chemicals and weather agents.

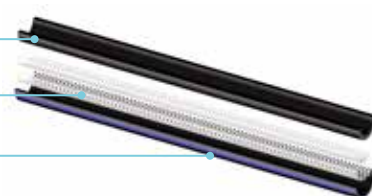
- In agriculture, delivery pressure hose of fungicide solutions also containing mineral oils for agriculture spraying. Compressed air.



Tubo de PVC-P / PVC hose

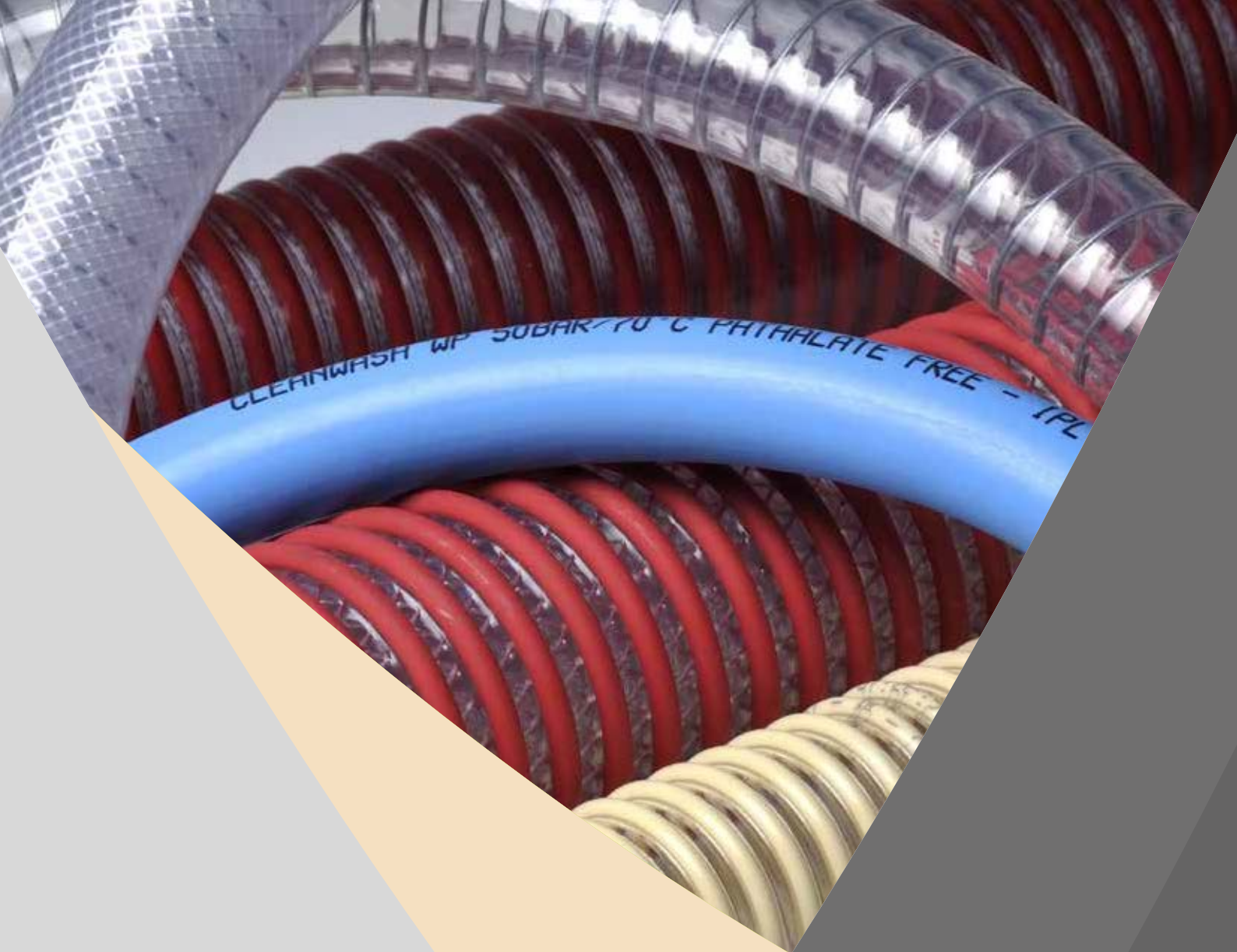
Refuerzo textil de poliéster / Textile reinforcement

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código                                                                                                                                                          | Ø Int. | Ø Est. | Peso   | P.T.  | P.R.  | R. de curvatura | Lg. Rollo  | Vol.  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|-------|-------|-----------------|------------|-------|
| Code                                                                                                                                                            | Ø Int. | Ø Out. | Weight | W.P.  | B.P.  | Bending         | Coil lgth. | Vol.  |
|                                                                                                                                                                 | mm     | mm     | g/m    | [bar] | [bar] | mm              | m          | m³    |
| A0010080015000                                                                                                                                                  | 8      | 15     | 160    | 80    | 160   | 64              | 100        | 0,034 |
| A0010100018000                                                                                                                                                  | 10     | 18     | 230    | 80    | 160   | 80              | 100        | 0,050 |
| A0010130021000                                                                                                                                                  | 13     | 21     | 275    | 80    | 160   | 104             | 100        | 0,076 |
| *Disponibile bajo demanda. Consulte con ventas para más información y cantidades / *Available on request, contact our sales office for more info and quantities |        |        |        |       |       |                 |            |       |
| Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity          |        |        |        |       |       |                 |            |       |



# Alimentación Food



**VULCANO® 04 ET**  
**VULCANO® 09 ET**  
**VULCANO® 12 ET**  
**VULCANO® 15 ET**  
**NEXT 09 ET**  
**EOLO PU FOOD**  
**EOLO PUP FOOD**  
**ZEUS PU FOOD**

**PLUTONE A**  
**PLUTONE A SE**  
**PLUTONE PU**  
**PLUTONE PF**  
**PLUTONE BIO**  
**PLUTONE PRESS BIO**  
**ARIANNA BIO**  
**ARIANNA TA**

**CLEANWASH**  
**NETTUNO PU**  
**SATURNO YELLOW**  
**NETTUNO**  
**NETTUNO ENO**  
**BACCO**  
**SPIRALPRESS ENO**

Las producciones de IPL se llevan a cabo de acuerdo con las buenas prácticas de fabricación (GMP - Good Manufacturing Practice) establecidas por el Reglamento (CE) 2023/2006 sobre buenas prácticas de fabricación de materiales y objetos destinados a entrar en contacto con productos alimenticios./ *IPL products are manufactured under GMP - Good Manufacturing Practice - according to Regulation (CE) N. 2023/2006 regarding manufacturing good practice of materials and goods intended to come into contact with foodstuff*

**Todos los tubos de la sección de alimentos están completamente libres de ftalatos. All hoses in the following chapter "Food" are completely phthalates free.**



# VULCANO® 04 ET (Cod. VE)



**Tubo transparente con pared de TPU a base de éter, reforzado con espiral de acero recubierto de TPU de color gris, para asegurar la máxima adhesión con la pared.** Realizado con un TPU especial dotado de características combinadas que convierten el material de la pared en antiestático permanente ( $R < 10^9$  Ohm/metro); Antiestática conectando la espiral a tierra ( $R < 10^2$  Ohm/m). Flexible y comprimible (aprox 5:1) para facilitar el transporte y el almacenaje. Espesor de pared de **0,4 mm** constante para todos los diámetros. Resistencia a la abrasión, a la flexión, a los ataques microbianos y a los procesos de hidrólisis. Alimentaria según Reg. UE 10/2011 (clase A, B, C, D2, E) y FDA CFR 21-Item 177.2600,

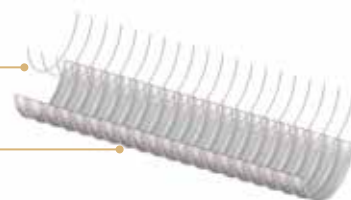
- Industria alimentaria: aspiración ligera y transporte de polvo y sustancias abrasivas de tipo alimentario (húmedas y secas) y alimentos grasos.

*Transparent ether based TPU hose, reinforced with a high adhesion TPU coated gray colored steel spiral. The wall material is permanent antistatic ( $R < 10^9$  Ohm/m). It can be made conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Axially compressible (5:1). Constant wall thickness of **0,4 mm** throughout the range. Excellent resistance to abrasion and flexion as well as to Hydrolysis and microbes. Food grade according to EU 10/2011(classes A, B, C, D2, E) and FDA CFR 21-Item 177.2600. Suitable for conveying fatty food.*

- Food industry: light suction and delivery of abrasive powders, flours and dry food.

Espiral de acero galvanizado recubierto de TPU  
TPU zinc coated steel spiral

TPU a base de éter / Ether based TPU



## Ficha técnica / Technical data

| Código         | Ø Int.    | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo   | Vol.           |
|----------------|-----------|--------------|--------|--------------------|-----------------|-------------|----------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.  | Vol.           |
|                | mm/inch   | mm           | g/m    | m H <sub>2</sub> O | mm              | m           | m <sup>3</sup> |
| VE010250000000 | 25*       | 0,40         | 130    | 0,40               | 25              | 20          | 0,05           |
| VE010300000000 | 30*       | 0,40         | 150    | 0,40               | 25              | 20          | 0,07           |
| VE010320000000 | 32*       | 0,40         | 160    | 0,40               | 25              | 20          | 0,07           |
| VE010350000000 | 35*       | 0,40         | 170    | 0,40               | 25              | 20          | 0,08           |
| VE010380000000 | 38*       | 0,40         | 185    | 0,40               | 30              | 20          | 0,08           |
| VE010400000000 | 40*       | 0,40         | 195    | 0,40               | 32              | 20          | 0,09           |
| VE010450000000 | 45*       | 0,40         | 215    | 0,40               | 36              | 20          | 0,14           |
| VE010510000000 | 51*       | 0,40         | 200    | 0,40               | 40              | 20          | 0,15           |
| VE010600000000 | 60*       | 0,40         | 230    | 0,40               | 50              | 20          | 0,17           |
| VE010630000000 | 63        | 0,40         | 245    | 0,40               | 55              | 20          | 0,18           |
| VE010650000000 | 65        | 0,40         | 250    | 0,40               | 56              | 20          | 0,19           |
| VE010700000000 | 70/2.3/4" | 0,40         | 295    | 0,40               | 60              | 20          | 0,20           |
| VE010760000000 | 76        | 0,40         | 315    | 0,40               | 65              | 20          | 0,22           |
| VE010800000000 | 80        | 0,40         | 330    | 0,40               | 65              | 20          | 0,23           |
| VE010820000000 | 82        | 0,40         | 340    | 0,40               | 65              | 20          | 0,23           |
| VE010900000000 | 90        | 0,40         | 370    | 0,40               | 75              | 20          | 0,25           |
| VE011000000000 | 100       | 0,40         | 410    | 0,30               | 85              | 15          | 0,31           |
| VE011020000000 | 102       | 0,40         | 415    | 0,30               | 85              | 15          | 0,32           |
| VE011100000000 | 110       | 0,40         | 450    | 0,30               | 90              | 15          | 0,34           |
| VE011150000000 | 115       | 0,40         | 470    | 0,30               | 95              | 15          | 0,35           |
| VE011200000000 | 120       | 0,40         | 485    | 0,25               | 100             | 15          | 0,55           |
| VE011270000000 | 127/5"    | 0,40         | 590    | 0,25               | 105             | 15          | 0,58           |
| VE011300000000 | 130       | 0,40         | 600    | 0,20               | 105             | 15          | 0,60           |
| VE011400000000 | 140       | 0,40         | 645    | 0,20               | 115             | 15          | 0,64           |
| VE011520000000 | 152/6"    | 0,40         | 700    | 0,20               | 125             | 15          | 0,69           |
| VE011600000000 | 160       | 0,40         | 865    | 0,15               | 130             | 15          | 0,86           |
| VE011650000000 | 165       | 0,40         | 890    | 0,15               | 130             | 15          | 0,89           |
| VE011800000000 | 180       | 0,40         | 970    | 0,15               | 150             | 15          | 0,96           |
| VE011820000000 | 182       | 0,40         | 980    | 0,15               | 150             | 15          | 0,97           |
| VE012030000000 | 203/8"    | 0,40         | 1095   | 0,10               | 165             | 15          | 1,09           |
| VE012200000000 | 220       | 0,40         | 1180   | 0,10               | 185             | 10 m compr. | 0,115          |
| VE012280000000 | 228       | 0,40         | 1225   | 0,10               | 185             | 10 m compr. | 0,124          |
| VE012540000000 | 254/10"   | 0,40         | 1360   | 0,10               | 210             | 10 m compr. | 0,152          |
| VE012790000000 | 279       | 0,40         | 1490   | 0,08               | 230             | 10 m compr. | 0,182          |
| VE013050000000 | 305/12"   | 0,40         | 1630   | 0,08               | 250             | 10 m compr. | 0,218          |
| VE013150000000 | 315       | 0,40         | 1685   | 0,07               | 275             | 10 m compr. | 0,232          |
| VE013560000000 | 356/14"   | 0,40         | 1900   | 0,07               | 300             | 10 m compr. | 0,295          |
| VE014060000000 | 406       | 0,40         | 2160   | 0,06               | 350             | 10 m compr. | 0,381          |
| VE014500000000 | 450       | 0,40         | 2620   | 0,06               | 350             | 10 m compr. | 0,466          |
| VE015000000000 | 500       | 0,40         | 2910   | 0,06               | 350             | 10 m compr. | 0,572          |

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# VULCANO® 09 ET (Cod. VK)



+90°C  
(picos +125°)  
-40°C



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 76-406

Tubo translucido de TPU a base de éter, reforzado con espiral de acero recubierto de TPU de color gris, para asegurar la máxima adhesión con la pared. Superficie interna lisa para optimizar el flujo, espesor de pared de 0,9 mm constante para todos los diámetros. Resistente a la hidrólisis y a los microbios; sin olor, no altera las propiedades organolépticas de los productos transportados. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Alimentario según FDA Regulations (title 21 cfr 177.2600 clases D,E,F).

• Aspiración de material abrasivo en la industria alimentaria y farmacéutica y allí donde sea necesaria la resistencia a los microbios y a la hidrólisis.

*Translucent ether based food grade TPU hose reinforced with gray colored TPU coated high adhesion steel spiral. Smooth inside to ensure optimization of flow properties. Constant wall thickness of 0,9 mm for the whole diameter range. Resistant to microbes and to Hydrolysis. Suitable to deliver foodstuff according to FDA Reg. (title 21 CFR 177.2600, classes D, F, E). The hose is odourless and doesn't change the organoleptical properties of the transferred materials. It can be made conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

• Suction of abrasive powders and substances in Food processing and pharma plants and anywhere resistance to microbes and Hydrolysis is required.

Espiral de acero galvanizado recubierto de TPU / TPU zinc coated steel spiral

TPU a base de éter / Ether based TPU



## Ficha técnica / Technical data

| Código         | Ø Int.    | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                        | Vol.           | Fascetta doppioponte W2 |
|----------------|-----------|--------------|--------|--------------------|-----------------|----------------------------------|----------------|-------------------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                       | Vol.           | Double bridge W2        |
|                | mm/inch   | mm           | g/m    | m H <sub>2</sub> O | mm              | m                                | m <sup>3</sup> |                         |
| VK010200000000 | 20*       | 0,90         | 155    | 5,0                | 25              | 20                               | 0,04           | -                       |
| VK010250000000 | 25*       | 0,90         | 195    | 5,0                | 30              | 20                               | 0,04           | -                       |
| VK010270000000 | 27*       | 0,90         | 205    | 5,0                | 30              | 20                               | 0,05           | -                       |
| VK010300000000 | 30*       | 0,90         | 235    | 5,0                | 35              | 20                               | 0,05           | -                       |
| VK010320000000 | 32*       | 0,90         | 250    | 5,0                | 35              | 20                               | 0,05           | -                       |
| VK010340000000 | 34*       | 0,90         | 265    | 5,0                | 40              | 20                               | 0,06           | -                       |
| VK010350000000 | 35*       | 0,90         | 270    | 5,0                | 40              | 20                               | 0,06           | -                       |
| VK010380000000 | 38        | 0,90         | 260    | 5,0                | 40              | 20                               | 0,06           | -                       |
| VK010400000000 | 40        | 0,90         | 270    | 5,0                | 50              | 20                               | 0,07           | -                       |
| VK010450000000 | 45*       | 0,90         | 355    | 5,0                | 50              | 20                               | 0,09           | -                       |
| VK010500000000 | 50        | 0,90         | 390    | 4,0                | 60              | 20                               | 0,10           | -                       |
| VK010510000000 | 51        | 0,90         | 395    | 4,0                | 60              | 20                               | 0,10           | -                       |
| VK010550000000 | 55*       | 0,90         | 425    | 4,0                | 60              | 20                               | 0,12           | -                       |
| VK010600000000 | 60        | 0,90         | 460    | 3,0                | 70              | 20                               | 0,13           | -                       |
| VK010630000000 | 63        | 0,90         | 485    | 3,0                | 70              | 20                               | 0,13           | -                       |
| VK010650000000 | 65*       | 0,90         | 500    | 3,0                | 70              | 20                               | 0,18           | -                       |
| VK010700000000 | 70/2.3/4" | 0,90         | 620    | 3,0                | 80              | 20                               | 0,20           | -                       |
| VK010750000000 | 75*       | 0,90         | 660    | 3,0                | 90              | 20                               | 0,22           | -                       |
| VK010760000000 | 76        | 0,90         | 670    | 3,0                | 90              | 20                               | 0,24           | -                       |
| VK010800000000 | 80        | 0,90         | 705    | 3,0                | 90              | 20                               | 0,26           | F2 W2 076.0 090.0       |
| VK010900000000 | 90        | 0,90         | 785    | 2,5                | 100             | 20                               | 0,29           | -                       |
| VK011000000000 | 100       | 0,90         | 870    | 2,0                | 120             | 15                               | 0,31           | -                       |
| VK011020000000 | 102/4"    | 0,90         | 885    | 2,0                | 120             | 15                               | 0,32           | -                       |
| VK011100000000 | 110       | 0,90         | 950    | 2,0                | 130             | 15                               | 0,34           | F2 W2 100.0 127.0       |
| VK011200000000 | 120       | 0,90         | 1035   | 1,5                | 140             | 15                               | 0,37           | -                       |
| VK011270000000 | 127/5"    | 0,90         | 1275   | 1,5                | 150             | 15                               | 0,39           | -                       |
| VK011300000000 | 130*      | 0,90         | 1305   | 1,5                | 150             | 15                               | 0,40           | -                       |
| VK011400000000 | 140*      | 0,90         | 1400   | 1,0                | 160             | 15                               | 0,64           | -                       |
| VK011500000000 | 150       | 0,90         | 1495   | 1,0                | 170             | 15                               | 0,69           | F2 W2 130.0 190.0       |
| VK011520000000 | 152/6"    | 0,90         | 1515   | 1,0                | 170             | 15                               | 0,70           | -                       |
| VK011600000000 | 160       | 0,90         | 1595   | 1,0                | 180             | 15                               | 0,73           | -                       |
| VK011800000000 | 180       | 0,90         | 1590   | 0,8                | 210             | 15                               | 0,97           | -                       |
| VK012000000000 | 200       | 0,90         | 1765   | 0,8                | 230             | 15                               | 1,08           | -                       |
| VK012030000000 | 203/8"    | 0,90         | 1790   | 0,8                | 230             | 15                               | 1,09           | -                       |
| VK012050000000 | 205*      | 0,90         | 1805   | 0,8                | 240             | 15                               | 1,10           | F2 W2 200.0 230.0       |
| VK012200000000 | 220*      | 0,90         | 1935   | 0,6                | 250             | 10                               | 1,18           | -                       |
| VK012250000000 | 225*      | 0,90         | 1980   | 0,6                | 260             | 10                               | 1,20           | -                       |
| VK012280000000 | 228*      | 0,90         | 2005   | 0,6                | 260             | 10                               | 1,22           | -                       |
| VK012500000000 | 250*      | 0,90         | 2190   | 0,6                | 290             | 10                               | 1,33           | -                       |
| VK012540000000 | 254*/10"  | 0,90         | 2225   | 0,6                | 290             | 10                               | 1,35           | -                       |
| VK012650000000 | 265*      | 0,90         | 2545   | 0,5                | 300             | 10                               | 1,41           | -                       |
| VK012740000000 | 274*      | 0,90         | 2630   | 0,5                | 320             | 10                               | 1,45           | F2 W2 250.0 330.0       |
| VK012790000000 | 279*      | 0,90         | 2675   | 0,5                | 320             | 10                               | 1,48           | -                       |
| VK013000000000 | 300*      | 0,90         | 2875   | 0,5                | 350             | 10                               | 1,59           | -                       |
| VK013050000000 | 305*/12"  | 0,90         | 2920   | 0,5                | 350             | 10                               | 1,61           | -                       |
| VK013500000000 | 350*      | 0,90         | 3835   | 0,4                | 400             | 10 m pz. dritti<br>10 m straight | 1,296          | F2 W2 350.0 410.0       |
| VK014060000000 | 406*      | 0,90         | 4435   | 0,3                | 470             | 10 m pz. dritti<br>10 m straight | 1,731          | -                       |
| VK015000000000 | 500*      | 0,90         | 6895   | 0,3                | 580             | 6 m pz. dritti<br>6 m straight   | 1,567          | -                       |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# VULCANO® 12 ET (Cod. VO)



SISTEMAS DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 76-355

**Tubo translucido con pared de TPU a base de éter, reforzado con espiral de acero recubierta de TPU de color gris, para asegurar la máxima adhesión con la pared.** Superficie interna lisa para optimizar el flujo. Espesor de pared constante de 1,2 mm para todos los diámetros. Resistente a la hidrólisis y al ataque microbico; inodoro, no altera las propiedades organolépticas de los productos transportados. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Alimentaria según FDA Regulations (title 21 cfr 177.2600 clases D,E,F).

• Industria alimentaria y farmacéutica: aspiración y transporte de polvo y sustancias abrasivas; usado en máquinas cortahierba y de limpieza estradal.

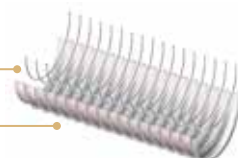
*Translucent ether-based TPU hose, reinforced with gray colored TPU coated high adhesion steel spiral. Smooth inside to optimize flow properties. Resistant to microbes and hydrolysis. Constant wall thickness of 1,2 mm for the whole diameter range. The hose is odourless and doesn't change the organoleptical properties of the transferred materials. It can be made conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Food grade, in accordance with FDA Regulations (title 21 CFR 177.2600, classes D, E, F).*

• Suction of abrasive media in Food processing and pharmaceutical industries; installed on grass cutting machines and street cleaning vehicles.

Espiral de acero galvanizado recubierto de TPU

TPU zinc coated steel spiral

TPU a base de éter / Ether based TPU



## Ficha técnica / Technical data

| Código        | Ø int.    | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                        | Vol.           | Abrazaderas doble puente W2 |
|---------------|-----------|--------------|--------|--------------------|-----------------|----------------------------------|----------------|-----------------------------|
| Code          | Ø Int.    | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                       | Vol.           | Double bridge W2            |
|               | mm/inch   | mm           | g/m    | m H <sub>2</sub> O | mm              | m                                | m <sup>3</sup> |                             |
| V001025000000 | 25*       | 1,20         | 245    | 6,0                | 30              | 20                               | 0,05           | -                           |
| V001030000000 | 30*       | 1,20         | 345    | 6,0                | 35              | 20                               | 0,05           | -                           |
| V001032000000 | 32*       | 1,20         | 365    | 6,0                | 35              | 20                               | 0,06           | -                           |
| V001035000000 | 35*       | 1,20         | 395    | 6,0                | 40              | 20                               | 0,06           | -                           |
| V001038000000 | 38*       | 1,20         | 385    | 6,0                | 40              | 20                               | 0,07           | -                           |
| V001040000000 | 40*       | 1,20         | 405    | 6,0                | 50              | 20                               | 0,09           | -                           |
| V001045000000 | 45*       | 1,20         | 450    | 6,0                | 50              | 20                               | 0,10           | -                           |
| V001050000000 | 50        | 1,20         | 495    | 5,0                | 60              | 20                               | 0,10           | -                           |
| V001051000000 | 51        | 1,20         | 505    | 5,0                | 60              | 20                               | 0,11           | -                           |
| V001060000000 | 60*       | 1,20         | 645    | 4,5                | 70              | 20                               | 0,13           | -                           |
| V001063000000 | 63        | 1,20         | 675    | 4,5                | 70              | 20                               | 0,18           | -                           |
| V001065000000 | 65*       | 1,20         | 695    | 4,5                | 70              | 20                               | 0,19           | -                           |
| V001070000000 | 70/2.3/4" | 1,20         | 845    | 4,5                | 80              | 20                               | 0,20           | -                           |
| V001075000000 | 75*       | 1,20         | 900    | 4,0                | 80              | 20                               | 0,21           | -                           |
| V001076000000 | 76        | 1,20         | 915    | 4,0                | 90              | 20                               | 0,22           | -                           |
| V001080000000 | 80        | 1,20         | 960    | 3,5                | 90              | 20                               | 0,23           | F2 W2 076.0 090.0           |
| V001090000000 | 90        | 1,20         | 1070   | 3,0                | 100             | 20                               | 0,28           | -                           |
| V001100000000 | 100*      | 1,20         | 1185   | 2,5                | 120             | 15                               | 0,31           | -                           |
| V001102000000 | 102/4"    | 1,20         | 1205   | 2,5                | 120             | 15                               | 0,32           | -                           |
| V001110000000 | 110       | 1,20         | 1420   | 2,5                | 130             | 15                               | 0,34           | F2 W2 100.0 127.0           |
| V001120000000 | 120*      | 1,20         | 1545   | 2,0                | 140             | 15                               | 0,37           | -                           |
| V001127000000 | 127/5"    | 1,20         | 1635   | 2,0                | 150             | 15                               | 0,39           | -                           |
| V001130000000 | 130*      | 1,20         | 1670   | 2,0                | 150             | 15                               | 0,40           | -                           |
| V001140000000 | 140*      | 1,20         | 1795   | 1,5                | 160             | 15                               | 0,64           | -                           |
| V001150000000 | 150*      | 1,20         | 1920   | 1,5                | 170             | 15                               | 0,69           | F2 W2 130.0 190.0           |
| V001152000000 | 152/6"    | 1,20         | 1945   | 1,5                | 170             | 15                               | 0,70           | -                           |
| V001160000000 | 160*      | 1,20         | 2040   | 1,5                | 180             | 15                               | 0,73           | -                           |
| V001180000000 | 180*      | 1,20         | 2060   | 1,0                | 210             | 15                               | 0,97           | -                           |
| V001200000000 | 200*      | 1,20         | 2285   | 1,0                | 230             | 15                               | 1,08           | -                           |
| V001203000000 | 203*/8"   | 1,20         | 2320   | 0,5                | 230             | 15                               | 1,09           | -                           |
| V001205000000 | 205*      | 1,20         | 2340   | 0,5                | 230             | 15                               | 1,10           | F2 W2 200.0 230.0           |
| V001220000000 | 220*      | 1,20         | 2505   | 0,5                | 260             | 10                               | 1,18           | -                           |
| V001228000000 | 228*      | 1,20         | 2595   | 0,5                | 260             | 10                               | 1,22           | -                           |
| V001250000000 | 250*      | 1,20         | 2840   | 0,5                | 290             | 10                               | 1,33           | -                           |
| V001254000000 | 254*/10"  | 1,20         | 2885   | 0,5                | 290             | 10                               | 1,35           | -                           |
| V001265000000 | 265*      | 1,20         | 3380   | 0,5                | 300             | 10                               | 1,41           | F2 W2 250.0 330.0           |
| V001279000000 | 279*      | 1,20         | 3555   | 0,5                | 320             | 10                               | 1,48           | -                           |
| V001305000000 | 305*/12"  | 1,20         | 3885   | 0,5                | 350             | 10                               | 1,61           | -                           |
| V001355000000 | 355*      | 1,20         | 4510   | 0,5                | 410             | 10 m pz. dritti<br>10 m straight | 1,334          | F2 W2 350.0 410.0           |
| V001500000000 | 500*      | 1,20         | 7690   | 0,3                | 600             | 6 m pz. dritti<br>6 m straight   | 1,568          | -                           |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity



# VULCANO® 15 ET (Cod. VI)



+90°C  
(picos +125°)  
-40°C



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 76-406

Tubo translúcido con pared de TPU a base de éter, reforzado con espiral de acero recubierta de TPU de color gris, para asegurar la máxima adhesión con la pared. Superficie interna lisa para optimizar el flujo. Espesor de pared constante de 1,5 mm para todos los diámetros. Superficie interna lisa para favorecer el pasaje de gránulos y otros sólidos y para optimizar el flujo. Resistente a microbios y a la hidrólisis. Inodoro, no altera las propiedades organolépticas de los productos transportados. Alimentario según FDA Regulations (title 21 cfr 177.2600 clases D, E, F). Antiestática ( $R < 10^2 \text{ Ohm/m}$ ) conectando la espiral a tierra.

• Industria alimentaria, química, y farmacéutica: aspiración de materiales alimentario altamente abrasivos. Industria plástica, para el pasaje de gránulos destinados al contacto con los alimentos; usado en máquinas de limpieza estradal.

*Translucent ether based TPU hose reinforced with a TPU coated gray colored steel spiral, to offer the best adhesion with the hose wall. Smooth inside to ensure optimization of flow properties. Constant wall thickness of 1,5 mm for the whole diameter range. The hose is odourless and doesn't change the organoleptical properties of the transferred materials. Resistant to microbes and Hydrolysis. It can be made conductive ( $R < 10^2 \text{ Ohm/m}$ ) by grounding the spiral. Food grade, in accordance with FDA Regulations (title 21 CFR 177.2600, classes D, E, F).*

• Suction of highly abrasive media in the food, chemical and pharmaceutical Industries and for all those applications where a special microbes resistance is required. Mainly used in plastic industry for the suction of granulates for products intended to come into contact with foodstuff. Installed on street cleaning vehicles.

Espiral de acero galvanizado recubierto de TPU / TPU zinc coated steel spiral

TPU a base de éter / Ether based TPU



## Ficha técnica / Technical data

| Código         | Ø int.    | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo                       | Vol.           | Abrazaderas doble puente W2 |
|----------------|-----------|--------------|--------|--------------------|-----------------|---------------------------------|----------------|-----------------------------|
| Code           | Ø Int.    | Min wall th. | Weight | Vac.               | Bending         | Coil lgth.                      | Vol.           | Double bridge W2            |
|                | mm/inch   | mm           | g/m    | m H <sub>2</sub> O | mm              | m                               | m <sup>3</sup> |                             |
| VI010200000000 | 20*       | 1,50         | 250    | 9,5                | 25              | 20                              | 0,04           | -                           |
| VI010250000000 | 25*       | 1,50         | 300    | 9,5                | 30              | 20                              | 0,05           | -                           |
| VI010300000000 | 30*       | 1,50         | 390    | 9,5                | 35              | 20                              | 0,06           | -                           |
| VI010320000000 | 32*       | 1,50         | 415    | 9,5                | 35              | 20                              | 0,06           | -                           |
| VI010350000000 | 35*       | 1,50         | 450    | 9,5                | 40              | 20                              | 0,06           | -                           |
| VI010380000000 | 38        | 1,50         | 470    | 9,5                | 40              | 20                              | 0,09           | -                           |
| VI010400000000 | 40        | 1,50         | 490    | 9,5                | 50              | 20                              | 0,09           | -                           |
| VI010450000000 | 45*       | 1,50         | 545    | 9,0                | 50              | 20                              | 0,10           | -                           |
| VI010500000000 | 50        | 1,50         | 600    | 9,0                | 60              | 20                              | 0,11           | -                           |
| VI010510000000 | 51        | 1,50         | 610    | 9,0                | 60              | 20                              | 0,12           | -                           |
| VI010600000000 | 60        | 1,50         | 705    | 8,5                | 70              | 20                              | 0,13           | -                           |
| VI010630000000 | 63        | 1,50         | 740    | 8,0                | 70              | 20                              | 0,19           | -                           |
| VI010650000000 | 65*       | 1,50         | 760    | 7,5                | 70              | 20                              | 0,19           | -                           |
| VI010700000000 | 70/2.3/4" | 1,50         | 895    | 7,5                | 80              | 20                              | 0,20           | -                           |
| VI010750000000 | 75*       | 1,50         | 955    | 7,0                | 80              | 20                              | 0,22           | -                           |
| VI010760000000 | 76        | 1,50         | 965    | 7,0                | 90              | 20                              | 0,22           | -                           |
| VI010800000000 | 80        | 1,50         | 1015   | 6,0                | 90              | 20                              | 0,26           | F2 W2 076.0 090.0           |
| VI010900000000 | 90        | 1,50         | 1135   | 5,0                | 100             | 20                              | 0,29           | -                           |
| VI011000000000 | 100*      | 1,50         | 1250   | 4,0                | 120             | 15                              | 0,32           | -                           |
| VI011020000000 | 102/4"    | 1,50         | 1275   | 3,5                | 120             | 15                              | 0,32           | -                           |
| VI011100000000 | 110       | 1,50         | 1370   | 3,2                | 130             | 15                              | 0,35           | -                           |
| VI011150000000 | 115       | 1,50         | 1430   | 3,0                | 135             | 15                              | 0,36           | -                           |
| VI011200000000 | 120       | 1,50         | 1490   | 3,0                | 140             | 15                              | 0,37           | -                           |
| VI011270000000 | 127/5"    | 1,50         | 1875   | 2,9                | 150             | 15                              | 0,40           | -                           |
| VI011300000000 | 130*      | 1,50         | 1920   | 2,6                | 150             | 15                              | 0,41           | -                           |
| VI011400000000 | 140*      | 1,50         | 2060   | 2,4                | 160             | 15                              | 0,65           | -                           |
| VI011500000000 | 150       | 1,50         | 2200   | 2,0                | 170             | 15                              | 0,69           | -                           |
| VI011520000000 | 152/6"    | 1,50         | 2230   | 2,0                | 170             | 15                              | 0,70           | F2 W2 130.0 190.0           |
| VI011600000000 | 160       | 1,50         | 2345   | 1,8                | 180             | 15                              | 0,74           | -                           |
| VI011800000000 | 180       | 1,50         | 2570   | 1,5                | 210             | 15                              | 0,83           | -                           |
| VI012000000000 | 200       | 1,50         | 2850   | 1,2                | 230             | 15                              | 0,91           | -                           |
| VI012030000000 | 203/8"    | 1,50         | 2890   | 1,2                | 230             | 15                              | 0,93           | -                           |
| VI012060000000 | 206*      | 1,50         | 2930   | 1,2                | 235             | 15                              | 1,11           | -                           |
| VI012200000000 | 220*      | 1,50         | 3125   | 1,0                | 260             | 10                              | 1,18           | -                           |
| VI012280000000 | 228*      | 1,50         | 3235   | 1,0                | 260             | 10                              | 1,23           | -                           |
| VI012500000000 | 250*      | 1,50         | 3540   | 0,8                | 290             | 10                              | 1,34           | -                           |
| VI012540000000 | 254*/10"  | 1,50         | 3595   | 0,8                | 290             | 10                              | 1,36           | -                           |
| VI012570000000 | 257*      | 1,50         | 3635   | 0,7                | 295             | 10                              | 1,37           | -                           |
| VI012650000000 | 265*      | 1,50         | 3750   | 0,7                | 300             | 10                              | 1,42           | F2 W2 250.0 330.0           |
| VI012790000000 | 279*      | 1,50         | 3940   | 0,7                | 320             | 10                              | 1,49           | -                           |
| VI013050000000 | 305*/12"  | 1,50         | 5145   | 0,5                | 350             | 10 m pz. dritti / 10 m straight | 1,007          | -                           |
| VI013560000000 | 356*/14"  | 1,50         | 5990   | 0,3                | 420             | 6 m pz. dritti / 6 m straight   | 0,814          | -                           |
| VI014000000000 | 400*      | 1,50         | 6715   | 0,3                | 480             | 6 m pz. dritti / 6 m straight   | 1,020          | -                           |
| VI014500000000 | 450*      | 1,50         | 7545   | 0,3                | 540             | 6 m pz. dritti / 6 m straight   | 1,283          | -                           |
| VI015000000000 | 500*      | 1,50         | 8370   | 0,2                | 600             | 6 m pz. dritti / 6 m straight   | 1,575          | -                           |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity



# NEXT 09 ET

(Cod. N9 ET)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Abrazaderas doble puente W2  
Double bridge W2



Cod. F2 W2 - Ø 100-300



**Tubo translucido de TPU a base de éter reforzado con espiral de acero INOX recubierto de TPU, para garantizar una óptima adhesión con la pared y asegurar la máxima seguridad en uso.** Superficie interna completamente lisa para optimizar el paso de gránulos y optimizar el flujo del material transportado; espesor de pared de 0,9 mm constante para todos los diámetros. Realizado con un TPU especial dotado de características combinadas que convierten el material de la pared en antiestático permanente ( $10^9$  Ohm/metro), y resistente a los ataques de microbios y a la hidrólisis. El tubo puede transformarse en conductivo ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Idóneo para el paso de alimentos, según la FDA Reg (Title 21 CFR 177.2600).

- Aspiración y de materiales abrasivos en las industrias alimentaria y farmacéutica. Puede ser usado en la industria química y para todas las aplicaciones que necesiten de una resistencia a la acción microbica.

Utilizado en la industria del plástico para el transporte de gránulos para la producción de manufacturados destinados al contacto con alimentos. Usado en máquinas de limpieza estradal.

*Translucent ether based TPU hose reinforced with a TPU-coated INOX steel spiral, to offer the best adhesion with the hose wall. Completely smooth inside to ensure optimization of flow properties. Constant wall thickness of 0,9 mm for the whole diameter range. It is made by a special TPU that combines different properties which make the wall material permanent antistatic ( $R < 10^9$  Ohm). Resistant to microbes and Hydrolysis. Strong but very light and flexible even at low temperatures, it is suitable for heavy duty applications where a very good abrasion resistance is required. Good resistance to mineral oils and chemicals, excellent resistance to ozone and weather. Food grade, in accordance with FDA Regulations (title 21 CFR 177.2600). The hose can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral.*

- Suction of abrasive media in the food and pharmaceutical industries. Used in chemical industry and for all those applications where a special microbes resistance is required. Mainly used in plastic industry for the suction of granulates for products intended to come into contact with foodstuff. Installed on street cleaning vehicles.

TPU a base de éter  
Ether based TPU

Espirale de acero galvanizado recubierto de TPU  
TPU zinc coated steel spiral



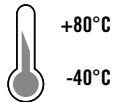
## Ficha técnica / Technical data

| Código        | Ø int.      | Min esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           | Abrazaderas doble puente W2 |
|---------------|-------------|--------------|--------|--------------------|-----------------|------------|----------------|-----------------------------|
| Code          | Ø Int.      | Min wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           | Double bridge W2            |
|               | mm/inch     | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                             |
| N9ET030000000 | 30*         | 0,9          | 230    | 2,5                | 40              | 20         | 0,051          | -                           |
| N9ET038000000 | 38,1/1.1/2" | 0,9          | 245    | 2,5                | 40              | 20         | 0,079          | -                           |
| N9ET040000000 | 40          | 0,9          | 330    | 2,5                | 40              | 20         | 0,084          | -                           |
| N9ET040000066 | 40*         | 0,9          | 330    | 2,5                | 40              | 20         | 0,084          | -                           |
| N9ET045000000 | 45*         | 0,9          | 350    | 2,5                | 45              | 20         | 0,093          | -                           |
| N9ET052000000 | 50,8/2"     | 0,9          | 395    | 2,0                | 50              | 20         | 0,103          | -                           |
| N9ET060000000 | 60*         | 0,9          | 505    | 1,5                | 70              | 20         | 0,128          | -                           |
| N9ET063000000 | 63,5/2.1/2" | 0,9          | 535    | 1,5                | 70              | 20         | 0,135          | -                           |
| N9ET065000000 | 65*         | 0,9          | 550    | 1,5                | 75              | 20         | 0,138          | -                           |
| N9ET070000000 | 70*/2.3/4"  | 0,9          | 690    | 1,5                | 90              | 20         | 0,198          | -                           |
| N9ET076000000 | 76,2/3"     | 0,9          | 745    | 1,5                | 90              | 20         | 0,214          | -                           |
| N9ET080000000 | 80          | 0,9          | 745    | 1,5                | 95              | 20         | 0,224          | -                           |
| N9ET090000000 | 90*         | 0,9          | 835    | 1,0                | 105             | 20         | 0,281          | -                           |
| N9ET100000000 | 100*        | 0,9          | 890    | 1,0                | 135             | 20         | 0,309          | -                           |
| N9ET102000000 | 102/4"      | 0,9          | 905    | 1,0                | 135             | 20         | 0,315          | -                           |
| N9ET110000000 | 110*        | 0,9          | 975    | 1,0                | 145             | 20         | 0,507          | F2 W2 100.0 127.0           |
| N9ET120000000 | 120         | 0,9          | 1060   | 0,7                | 160             | 20         | 0,550          | -                           |
| N9ET127000000 | 127*/5"     | 0,9          | 1120   | 0,7                | 210             | 20         | 0,581          | -                           |
| N9ET140000000 | 140*        | 0,9          | 1285   | 0,5                | 185             | 20         | 0,638          | -                           |
| N9ET152000000 | 152,4*/6"   | 0,9          | 1400   | 0,5                | 230             | 20         | 0,820          | -                           |
| N9ET160000000 | 160*        | 0,9          | 1465   | 0,5                | 250             | 20         | 0,859          | F2 W2 130.0 190.0           |
| N9ET180000000 | 180*        | 0,9          | 2165   | 0,3                | 270             | 20         | 0,969          | -                           |
| N9ET203000000 | 203,2*/8"   | 0,9          | 2435   | 0,3                | 300             | 15         | 1,087          | F2 W2 200.0 230.0           |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# EOLO PU FOOD (Cod. EU)



**Tubo transparente con pared de TPU a base de éter, con espiral de refuerzo de PVC rígido antichoque color marfil.** Interno perfectamente liso. Externo corrugado; muy ligero y maneable, presenta una notable resistencia a la abrasión, a la flexión, a los ataques microbianos y a los procesos de hidrólisis. Espesor de pared de 0,4 mm a 0,8 mm. Alimentaria según Reg. UE 10/2011 (clase A, B, C, D2, E) FDA CFR 21-Item 177.2600 (alimentos secos (d), líquidos (e) y grasos (f)). Espiral con calidad alimentaria. Versión antiestática (con hilo de cobre) según pedido.

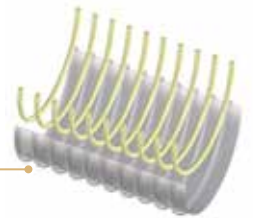
• Industria alimentaria: aspiración ligera y transporte de polvo y sustancias abrasivas de tipo alimentario (húmedas, secas y grasas).

*Transparent ether based, food grade TPU wall, reinforced with ivory anti-shock rigid PVC spiral. Smooth inside, corrugated outside. Wall thickness from 0.4 mm to 0.8 mm. Resistant to abrasion and flexion as well as to microbes and Hydrolysis, this hose features high mechanical properties. Light and extremely flexible. Food grade according to FDA Reg. Cfr 21-Item 17.2600 (dry (d), aqueous (e) and fatty (f) food) and to EU Reg. 10/2011(classes A, B, C, D2 and E). Food grade spiral. Antistatic version with copper wire available on request.*

• Light suction of food flours, powders, sugar, granules and foodstuff in general with a limited abrasion power. Suitable for fatty foods.

Espiral de PVC rígido anti choque / Anti-shock rigid PVC spiral

TPU a base de éter / Ether based TPU



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|-------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                       |
|                | mm/inch     | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                       |
|                |             |              |              |        |                    |                 |            |                |                                                                                       |
| EU010130000000 | 13*         | 0,4          | 2,8          | 80     | 2,5                | 20              | 20         | 0,013          |                                                                                       |
| EU010160000000 | 16*         | 0,4          | 2,8          | 90     | 2,5                | 25              | 20         | 0,018          |                                                                                       |
| EU010190000000 | 19,1*3/4"   | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,022          |                                                                                       |
| EU010200000000 | 20          | 0,4          | 2,8          | 110    | 2,5                | 25              | 20         | 0,024          |                                                                                       |
| EU010220000000 | 22*         | 0,4          | 2,8          | 120    | 2,5                | 28              | 20         | 0,028          |                                                                                       |
| EU010250000000 | 25          | 0,4          | 2,8          | 140    | 2,5                | 30              | 20         | 0,034          |                                                                                       |
| EU010300000000 | 30          | 0,4          | 2,8          | 160    | 2,5                | 35              | 20         | 0,051          |                                                                                       |
| EU010320000000 | 31,8/1.1/4" | 0,4          | 2,9          | 180    | 2                  | 35              | 20         | 0,054          |                                                                                       |
| EU010350000000 | 35          | 0,5          | 3,0          | 200    | 2                  | 45              | 20         | 0,059          |                                                                                       |
| EU010380000000 | 38,1/1.1/2" | 0,5          | 3,1          | 230    | 2                  | 50              | 20         | 0,080          |                                                                                       |
| EU010400000000 | 40          | 0,5          | 3,1          | 240    | 2                  | 60              | 20         | 0,083          | eu 01/eu02                                                                            |
| EU010450000000 | 45          | 0,5          | 3,2          | 280    | 2                  | 65              | 20         | 0,099          |                                                                                       |
| EU010500000000 | 50*         | 0,5          | 3,4          | 320    | 2                  | 70              | 20         | 0,109          |                                                                                       |
| EU010520000000 | 50,8/2"     | 0,5          | 3,4          | 330    | 2                  | 70              | 20         | 0,111          | eu 01/eu02                                                                            |
| EU010550000000 | 55*         | 0,5          | 3,6          | 390    | 2                  | 75              | 20         | 0,119          |                                                                                       |
| EU010600000000 | 60          | 0,5          | 3,8          | 460    | 1,6                | 80              | 20         | 0,130          | eu 01/eu02                                                                            |
| EU010630000000 | 63,5/2.1/2" | 0,5          | 3,9          | 510    | 1,6                | 80              | 20         | 0,183          |                                                                                       |
| EU010650000000 | 65*         | 0,5          | 3,9          | 520    | 1,6                | 90              | 20         | 0,186          |                                                                                       |
| EU010700000000 | 70/2.3/4"   | 0,6          | 4,2          | 550    | 1,6                | 95              | 30         | 0,339          |                                                                                       |
| EU010760000000 | 76,2/3"     | 0,6          | 4,2          | 590    | 1,6                | 100             | 30         | 0,365          |                                                                                       |
| EU010800000000 | 80          | 0,6          | 4,5          | 630    | 1,6                | 110             | 30         | 0,384          |                                                                                       |
| EU010900000000 | 90          | 0,6          | 4,6          | 740    | 1,4                | 125             | 30         | 0,429          |                                                                                       |
| EU011000000000 | 100         | 0,6          | 4,8          | 790    | 1,3                | 140             | 30         | 0,473          | eu 01/eu02                                                                            |
| EU011020000000 | 102/4"      | 0,6          | 4,8          | 810    | 1,3                | 140             | 30         | 0,482          |                                                                                       |
| EU011100000000 | 110         | 0,6          | 5,1          | 920    | 1,2                | 150             | 30         | 0,692          |                                                                                       |
| EU011200000000 | 120         | 0,6          | 5,4          | 1100   | 1                  | 160             | 30         | 0,753          |                                                                                       |
| EU011270000000 | 127/5"      | 0,6          | 5,4          | 1160   | 1                  | 170             | 30         | 0,794          |                                                                                       |
| EU011300000000 | 130         | 0,7          | 5,7          | 1330   | 0,9                | 170             | 20         | 0,611          |                                                                                       |
| EU011400000000 | 140         | 0,7          | 5,7          | 1430   | 0,9                | 180             | 20         | 0,654          |                                                                                       |
| EU011500000000 | 151,5       | 0,7          | 5,8          | 1480   | 0,8                | 200             | 20         | 0,939          |                                                                                       |
| EU011520000000 | 152,4/6"    | 0,7          | 5,8          | 1490   | 0,8                | 200             | 20         | 0,945          |                                                                                       |
| EU011600000000 | 160         | 0,7          | 7,2          | 1910   | 0,7                | 220             | 20         | 0,893          |                                                                                       |
| EU011700000000 | 170*        | 0,7          | 7,2          | 2030   | 0,5                | 230             | 20         | 1,416          |                                                                                       |
| EU011800000000 | 180         | 0,7          | 7,2          | 2140   | 0,4                | 250             | 20         | 1,493          |                                                                                       |
| EU012000000000 | 200         | 0,7          | 7,2          | 2200   | 0,4                | 260             | 20         | 1,647          |                                                                                       |
| EU012030000000 | 203,2*/8"   | 0,7          | 7,2          | 2240   | 0,4                | 260             | 20         | 1,671          |                                                                                       |
| EU012500000000 | 250         | 0,8          | 8,0          | 3330   | 0,4                | 300             | 10         | 1,362          |                                                                                       |
| EU013000000000 | 300         | 0,8          | 8,2          | 4150   | 0,3                | 350             | 10         | 1,620          |                                                                                       |

\* Disponible bajo demanda. Consulte con ventas para más información y cantidades / \* Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock

# EOLO PUP FOOD (Cod. EP)



**Tubo transparente con pared de TPU, a base de éter, con espiral de refuerzo de PVC rígido antichoque de color marfil.** Interno perfectamente liso. Externo corrugado; muy ligero y maneable, presenta una notable resistencia a la abrasión, a la flexión, a los ataques microbianos y a los procesos de hidrólisis. Espesor de pared de 0,8 mm a 1,2 mm. Versión antiestática (con hilo de cobre) según pedido. Alimentaria según Reg. UE 10/2011 (clase A, B, C, D2, E ) FDA CFR 21-Item 177.2600 (alimentos secos (d), líquidos (e) y grasos (f)). Espiral de calidad alimentaria.

- Industria alimentaria: aspiración y transporte de polvo y sustancias abrasivas de tipo alimentario (húmedas, secas y grasas). Piscifactorias, en el sector de la acuicultura, para el transporte de pescado.

*Transparent ether based TPU wall, reinforced with anti-shock rigid PVC spiral. Smooth inside, corrugated outside. Wall thickness from 0,8 mm to 1,2 mm. Light, flexible, extremely resistant to abrasion, microbes, Hydrolysis and flexion, this hose features high mechanical properties. Food grade according to FDA REg. cfr 21-Item 177.2600 (classes D,E,F) and to the EU Regulation 10/2011(classes A,B,C,D2 and E). Food grade spiral. The antistatic version with copper wire is available on request.*

- Medium suction of dry food such as grains, animal feed, sugar, flour and abrasive foodstuff in general. It finds a perfect application also in aquaculture, for fish handling. Suitable for fatty foods.

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

TPU a base de éter  
Ether based TPU

## Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |       |
|----------------|--------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|-------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |       |
|                | mm/inch      | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |       |
| EP010220000000 | 22*          | 0,8          | 3,3          | 180    | 3,5                | 80              | 30         | 0,041          |       |
| EP010250000000 | 25*          | 0,8          | 3,3          | 210    | 3,5                | 80              | 30         | 0,057          |       |
| EP010300000000 | 30*          | 0,8          | 3,3          | 240    | 3,5                | 100             | 30         | 0,070          |       |
| EP010320000000 | 31,8*/1.1/4" | 0,8          | 3,3          | 260    | 3                  | 110             | 30         | 0,074          |       |
| EP010350000000 | 35*          | 0,8          | 3,5          | 280    | 3                  | 120             | 30         | 0,081          |       |
| EP010380000000 | 38,1/1.1/2"  | 0,8          | 3,5          | 300    | 3                  | 130             | 30         | 0,087          |       |
| EP010390000000 | 39*          | 0,8          | 3,5          | 310    | 3                  | 135             | 30         | 0,118          |       |
| EP010400000000 | 40           | 1,0          | 3,6          | 350    | 3                  | 140             | 30         | 0,121          | EP 02 |
| EP010450000000 | 45*          | 1,0          | 3,9          | 440    | 3                  | 160             | 30         | 0,135          |       |
| EP010500000000 | 50*          | 1,0          | 4,3          | 540    | 3                  | 175             | 30         | 0,169          |       |
| EP010520000000 | 50,8/2"      | 1,0          | 4,3          | 550    | 3                  | 175             | 30         | 0,171          | EP 02 |
| EP010550000000 | 55*          | 1,0          | 4,3          | 590    | 3                  | 190             | 30         | 0,183          |       |
| EP010600000000 | 60           | 1,0          | 4,3          | 640    | 3                  | 200             | 30         | 0,198          |       |
| EP010630000000 | 63,5/2.1/2"  | 1,0          | 4,3          | 670    | 3                  | 230             | 30         | 0,311          |       |
| EP010650000000 | 65*          | 1,0          | 4,3          | 690    | 3                  | 230             | 30         | 0,318          |       |
| EP010700000000 | 70/2.3/4"    | 1,0          | 4,8          | 750    | 3                  | 250             | 30         | 0,344          |       |
| EP010760000000 | 76,2/3"      | 1,0          | 4,8          | 810    | 2,5                | 270             | 30         | 0,371          |       |
| EP010800000000 | 80           | 1,0          | 5,2          | 900    | 2,5                | 290             | 30         | 0,391          |       |
| EP010900000000 | 90           | 1,0          | 5,4          | 1060   | 2,5                | 360             | 30         | 0,581          |       |
| EP011000000000 | 100          | 1,0          | 5,9          | 1240   | 2,5                | 400             | 30         | 0,644          |       |
| EP011020000000 | 102/4"       | 1,0          | 5,9          | 1270   | 2,5                | 400             | 30         | 0,655          |       |
| EP011100000000 | 110*         | 1,0          | 6,1          | 1380   | 2,5                | 440             | 30         | 0,938          |       |
| EP011200000000 | 120          | 1,0          | 6,1          | 1500   | 2,5                | 470             | 30         | 1,015          |       |
| EP011270000000 | 127/5"       | 1,0          | 6,1          | 1580   | 2,5                | 500             | 30         | 1,069          |       |
| EP011300000000 | 130*         | 1,0          | 6,1          | 1620   | 2,5                | 520             | 30         | 1,092          |       |
| EP011400000000 | 140*         | 1,0          | 6,2          | 1780   | 2                  | 570             | 30         | 1,170          |       |
| EP011500000000 | 151,5        | 1,0          | 6,6          | 1980   | 2                  | 600             | 20         | 1,265          |       |
| EP011520000000 | 152,4*/6"    | 1,0          | 6,6          | 2000   | 2                  | 600             | 20         | 1,272          |       |
| EP011600000000 | 160*         | 1,0          | 7,4          | 2150   | 2                  | 600             | 20         | 1,342          |       |
| EP011800000000 | 180*         | 1,0          | 7,4          | 2410   | 0,4                | 250             | 20         | 1,558          |       |
| EP012030000000 | 203,2*/8"    | 1,2          | 9,4          | 2950   | 1                  | 400             | 20         | 1,776          |       |
| EP012540000000 | 254*/10"     | 1,2          | 9,4          | 3670   | 1                  | 500             | 10         | 1,397          |       |
| EP013050000000 | 304,8*/12"   | 1,2          | 9,4          | 4380   | 0,8                | 610             | 10         | 1,657          |       |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

disponible en stock / available on stock



# ZEUS PU FOOD

(Cod. ZE)



**Tubo transparente de TPU de base éter con espiral de refuerzo de PVC rígido anti choque de color marfil.** Completamente liso internamente y externo corrugado, presenta una elevada resistencia a la abrasión, a la flexión, a los ataques de microbios, y a la hidrólisis. Espesor de pared de 1,2 mm a 2,0 mm. Alimentario según la FDA Reg. Cfr 21-Item 17.2600 (alimentos aguosos y grasos) y Reg. UE 10/2011 (clases A, B, C, D2). Espiral de calidad alimentaria. Versión antiestática (con cordón de cobre) bajo pedido.

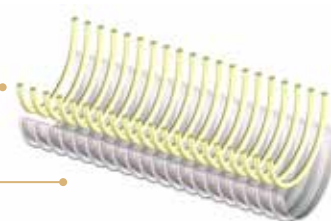
- Industria alimentaria: aspiración y transporte de substancias alimentarias, polvos y frutos secos, gránulos y granos de diverso poder abrasivo(húmedas, secas y grasas).

***Ether based food grade TPU wall, with anti-shock rigid PVC spiral.** Smooth inside, corrugated outside. Light and flexible. Wall thickness from 1,2 mm to 2,0 mm. Resistant to Hydrolysis, microbes attacks, abrasion and flexion, this hose features high mechanical properties. Food grade according to FDA REG. Cfr 21-Item 17.2600 (acquous and fatty food) and to EU Reg. 10/2011 (classes A, B, C, D2 and E). Food grade spiral. The antistatic version with copper wire is available on request.*

- Heavy suction and delivery of food grade powders, animal feed, granules and grains different size and abrasion power, such as sugar, salt and dry fruit. Suitable for fatty food.

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

TPU a base de éter  
Ether based TPU



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|-------------|--------------|--------------|--------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch     | mm           | mm           | g/m    | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| ZE010300000000 | 30*         | 1,2          | 3,7          | 320    | 9                  | 130             | 30         | 0,072          |
| ZE010320000000 | 31,8/1.1/4" | 1,2          | 3,8          | 350    | 9                  | 140             | 30         | 0,076          |
| ZE010350000000 | 35*         | 1,3          | 4,0          | 380    | 9                  | 160             | 30         | 0,083          |
| ZE010380000000 | 38,1/1.1/2" | 1,3          | 4,0          | 420    | 9                  | 180             | 30         | 0,118          |
| ZE010400000000 | 40          | 1,5          | 4,3          | 500    | 9                  | 190             | 30         | 0,124          |
| ZE010450000000 | 45*         | 1,5          | 4,4          | 570    | 8                  | 200             | 30         | 0,172          |
| ZE010500000000 | 50*         | 1,5          | 4,8          | 690    | 8                  | 215             | 30         | 0,172          |
| ZE010520000000 | 50,8/2"     | 1,5          | 4,8          | 700    | 8                  | 215             | 30         | 0,174          |
| ZE010550000000 | 55*         | 1,5          | 4,9          | 780    | 8                  | 225             | 30         | 0,187          |
| ZE010570000000 | 57*         | 1,5          | 4,9          | 800    | 8                  | 225             | 30         | 0,192          |
| ZE010600000000 | 60          | 1,5          | 5,0          | 870    | 8                  | 230             | 30         | 0,302          |
| ZE010630000000 | 63,5/2.1/2" | 1,5          | 5,0          | 920    | 8                  | 240             | 30         | 0,318          |
| ZE010650000000 | 65*         | 1,5          | 5,0          | 940    | 8                  | 240             | 30         | 0,324          |
| ZE010700000000 | 70/2.3/4"   | 1,5          | 5,3          | 950    | 8                  | 250             | 30         | 0,348          |
| ZE010760000000 | 76,2/3"     | 1,7          | 5,5          | 1120   | 8                  | 270             | 30         | 0,377          |
| ZE010800000000 | 80          | 2,0          | 5,9          | 1260   | 7                  | 290             | 30         | 0,397          |
| ZE010900000000 | 90          | 2,0          | 5,9          | 1410   | 7                  | 380             | 30         | 0,586          |
| ZE011000000000 | 100         | 2,0          | 6,3          | 1600   | 7                  | 420             | 30         | 0,649          |
| ZE011020000000 | 102/4"      | 2,0          | 6,3          | 1630   | 7                  | 420             | 30         | 0,660          |
| ZE011100000000 | 110*        | 2,0          | 7,6          | 2220   | 6,5                | 450             | 30         | 0,901          |
| ZE011200000000 | 120         | 2,0          | 7,6          | 2410   | 6,5                | 480             | 30         | 0,973          |
| ZE011270000000 | 127/5"      | 2,0          | 7,6          | 2540   | 6,5                | 530             | 30         | 1,092          |
| ZE011500000000 | 151,2       | 2,0          | 8,1          | 3110   | 6                  | 800             | 20         | 1,286          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity



# PLUTONE A (Cod. PY 01)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo transparente de PVC reforzado con espiral de acero.** Superficie interna lisa para favorecer el paso de las sustancias y para facilitar la limpieza y la desinfección después del uso. Transparente para una fácil identificación de sustancias. Resistente a los agentes atmosféricos, el envejecimiento y a numerosos productos químicos. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Idóneo para el transporte de alimentos según el Reglamento Europeo UE 10/2011 (clase A, B, C).

• Aspiración e impulsión de líquidos alimentarios, bebidas, zumos de fruta, vinagre, vino y licores con concentraciones alcohólicas de hasta el 20%.

Viene además usado en máquinas de envasado y dosificación.

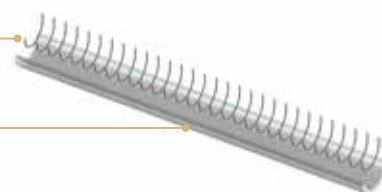
*Transparent hose produced with PVC-P and reinforced with steel spiral. Smooth inside to enhance the flow properties and to allow an easy cleaning after use. Clear wall for an easy detection of the media transferred. Resistant to several chemicals and to weather conditions.*

*It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Suitable to deliver foodstuffs according to Reg. EU 10/2011 (classes A,B, C).*

• Ideal solution for suction and delivery of food liquids, beverages, fruit juices, wine and liquors with up to 20% alcohol concentration. It is often used for filling machines and dispensers.

Espirale de acero / Steel spiral

Tubo de PVC-P / PVC hose



Ficha técnica / Technical data

| Código         | Ø int.    | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           | IPF |
|----------------|-----------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|-----|
| Code           | Ø Int.    | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |     |
|                | mm/inch   | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |     |
| PY010060012200 | 6         | 12,2   | 130    | 2,4   | 25    | 9,5                | 30              | 60         | 0,019          |     |
| PY010080014200 | 8         | 14,2   | 155    | 2,8   | 25    | 9,5                | 40              | 60         | 0,024          |     |
| PY010100016000 | 10        | 16,0   | 175    | 3,2   | 25    | 9,5                | 50              | 60         | 0,028          |     |
| PY010120018000 | 12        | 18,0   | 200    | 3,6   | 25    | 9,5                | 50              | 60         | 0,033          |     |
| PY010130019000 | 13*       | 19,0   | 215    | 3,8   | 25    | 9,5                | 60              | 60         | 0,038          |     |
| PY010140020000 | 14        | 20,0   | 225    | 4,0   | 25    | 9,5                | 60              | 60         | 0,039          |     |
| PY010160022400 | 16        | 22,4   | 270    | 4,5   | 25    | 9,5                | 70              | 60         | 0,048          |     |
| PY010180024400 | 18        | 24,4   | 295    | 4,9   | 25    | 9,5                | 80              | 60         | 0,070          |     |
| PY010190026000 | 19*       | 26,0   | 340    | 5,2   | 25    | 9,5                | 90              | 60         | 0,075          |     |
| PY010200027000 | 20        | 27,0   | 355    | 5,4   | 25    | 9,5                | 90              | 60         | 0,086          |     |
| PY010220029000 | 22        | 29,0   | 385    | 5,8   | 25    | 9,5                | 100             | 60         | 0,093          |     |
| PY010250033000 | 25        | 33,0   | 505    | 6,6   | 20    | 9,5                | 110             | 60         | 0,127          |     |
| PY010300038000 | 30        | 38,0   | 590    | 7,6   | 20    | 8,5                | 140             | 60         | 0,146          |     |
| PY010320040400 | 32        | 40,4   | 650    | 8,1   | 20    | 8,5                | 140             | 60         | 0,155          |     |
| PY010350043400 | 35        | 43,4   | 705    | 8,7   | 20    | 8,5                | 160             | 60         | 0,167          |     |
| PY010380047000 | 38        | 47,0   | 810    | 9,4   | 20    | 8,5                | 170             | 30         | 0,120          |     |
| PY010400049000 | 40        | 49,0   | 850    | 9,8   | 20    | 8,5                | 180             | 30         | 0,125          |     |
| PY010450054800 | 45        | 54,8   | 1110   | 11,0  | 20    | 8                  | 200             | 30         | 0,175          |     |
| PY010500060000 | 50        | 60,0   | 1245   | 12,0  | 20    | 8                  | 230             | 30         | 0,259          |     |
| PY010508060800 | 50,8*/2"  | 60,8   | 1265   | 12,2  | 20    | 8                  | 230             | 30         | 0,263          |     |
| PY010600071800 | 60        | 71,8   | 1715   | 14,4  | 18    | 8                  | 270             | 30         | 0,310          |     |
| PY010630074800 | 63        | 74,8   | 1815   | 15,0  | 18    | 8                  | 280             | 30         | 0,323          |     |
| PY010650076800 | 65*       | 76,8   | 1865   | 15,4  | 18    | 7,5                | 290             | 30         | 0,332          |     |
| PY010700082000 | 70/2.3/4" | 82,0   | 2035   | 16,4  | 18    | 7                  | 320             | 30         | 0,354          |     |
| PY010760088200 | 76        | 88,2   | 2225   | 17,6  | 18    | 7                  | 340             | 30         | 0,508          |     |
| PY010800092200 | 80        | 92,2   | 2360   | 18,4  | 18    | 7                  | 360             | 20         | 0,398          |     |
| PY010900103000 | 90        | 103,0  | 3030   | 20,6  | 15    | 7                  | 410             | 20         | 0,527          |     |
| PY011020115000 | 102/4"    | 115,0  | 3400   | 23,0  | 12    | 7                  | 460             | 20         | 0,589          |     |
| PY011050118000 | 105*      | 118,0  | 3495   | 23,6  | 12    | 7                  | 470             | 20         | 0,604          |     |
| PY011100127400 | 110       | 127,4  | 4840   | 25,5  | 8     | 9,0                | 550             | 20         | 0,652          |     |
| PY011200137400 | 120       | 137,4  | 5245   | 27,5  | 6     | 9,0                | 600             | 20         | 1,055          |     |
| PY011270144400 | 127/5"    | 144,4  | 5570   | 28,9  | 6     | 9,0                | 640             | 20         | 1,109          |     |
| PY011500168600 | 151       | 169,6  | 6950   | 33,9  | 6     | 9,0                | 760             | 20         | 1,303          |     |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

IPF disponible en stock / available on stock

# PLUTONE A SE

(Cod. PY 06)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo transparente de PVC reforzado con espiral de acero. Elevada flexibilidad.** Superficie interna lisa para favorecer el paso de las sustancias y para facilitar la limpieza y la desinfección después del uso. Transparente para una fácil identificación de sustancias. Resistente a los agentes atmosféricos, el envejecimiento y a numerosos productos químicos. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Idóneo para el transporte de alimentos según el reglamento Europeo UE 10/2011 (clase A, B, C).

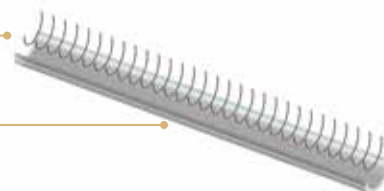
- Aspiración e impulsión de líquidos alimentarios, bebidas, zumos de fruta, vinagre, vino y licores con concentraciones alcohólicas de hasta el 20%. Viene además usado en máquinas de envasado y dosificación.

**Super flexible transparent hose, produced with PVC-P and reinforced with steel spiral.** Smooth inside to enhance the flow properties and to allow an easy cleaning after use. Clear wall for an easy detection of the media transferred. Resistant to several chemicals and to weather conditions. It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Suitable to deliver foodstuffs according to Reg. EU 10/2011 (classes A,B,C).

- Ideal solution for suction and delivery of food liquids, beverages, fruit juices, wine and liquors with up to 20% alcohol concentration. It is often used for filling machines and dispensers.

Espirale de acero / Steel spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

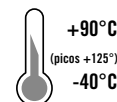
| Código         | Ø int.    | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|-----------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.    | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                       |
|                | mm/inch   | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                       |
| PY060060012200 | 6         | 12,2   | 130    | 20    | 4,0   | 9,5                | 20              | 60         | 0,019          |                                                                                       |
| PY060080014200 | 8         | 14,2   | 150    | 20    | 4,0   | 9,5                | 30              | 60         | 0,024          |                                                                                       |
| PY060100016000 | 10        | 16,0   | 170    | 20    | 4,0   | 9,5                | 40              | 60         | 0,028          |                                                                                       |
| PY060120018000 | 12        | 18,0   | 195    | 20    | 4,0   | 9,5                | 40              | 60         | 0,033          |                                                                                       |
| PY060130019000 | 13*       | 19,0   | 210    | 20    | 4,0   | 9,5                | 50              | 60         | 0,038          |                                                                                       |
| PY060140020000 | 14        | 20,0   | 225    | 20    | 4,0   | 9,5                | 50              | 60         | 0,039          |                                                                                       |
| PY060160022400 | 16        | 22,4   | 265    | 20    | 4,0   | 9,5                | 60              | 60         | 0,048          |                                                                                       |
| PY060180024400 | 18        | 24,4   | 290    | 20    | 4,0   | 9,5                | 60              | 60         | 0,070          |                                                                                       |
| PY060190026000 | 19*       | 26,0   | 330    | 20    | 4,0   | 9,5                | 70              | 60         | 0,075          |                                                                                       |
| PY060200027000 | 20        | 27,0   | 345    | 20    | 4,0   | 9,5                | 70              | 60         | 0,086          |                                                                                       |
| PY060220029000 | 22        | 29,0   | 375    | 20    | 4,0   | 9,5                | 80              | 60         | 0,093          |                                                                                       |
| PY060250033000 | 25        | 33,0   | 495    | 15    | 3,0   | 9,5                | 90              | 60         | 0,127          |                                                                                       |
| PY060300038000 | 30        | 38,0   | 580    | 15    | 3,0   | 8,5                | 110             | 60         | 0,146          |                                                                                       |
| PY060320040400 | 32        | 40,4   | 640    | 15    | 3,0   | 8,5                | 110             | 60         | 0,155          |                                                                                       |
| PY060350043400 | 35        | 43,4   | 690    | 15    | 3,0   | 8,5                | 120             | 60         | 0,167          |                                                                                       |
| PY060380047000 | 38        | 47,0   | 795    | 15    | 3,0   | 8,5                | 130             | 30         | 0,120          |                                                                                       |
| PY060400049000 | 40        | 49,0   | 835    | 15    | 3,0   | 8,5                | 140             | 30         | 0,125          |                                                                                       |
| PY060420051200 | 42*       | 51,2   | 890    | 15    | 3,0   | 8,5                | 150             | 30         | 0,131          |                                                                                       |
| PY060450054800 | 45        | 54,8   | 1090   | 15    | 3,0   | 8,0                | 160             | 30         | 0,175          |                                                                                       |
| PY060500060000 | 50        | 60,0   | 1225   | 15    | 3,0   | 8,0                | 180             | 30         | 0,259          |                                                                                       |
| PY060508060800 | 50,8*/2"  | 60,8   | 1245   | 15    | 3,0   | 8,0                | 180             | 30         | 0,263          |                                                                                       |
| PY060600071800 | 60        | 71,8   | 1685   | 12    | 2,5   | 8,0                | 210             | 30         | 0,310          |                                                                                       |
| PY060630074800 | 63        | 74,8   | 1785   | 12    | 2,5   | 8,0                | 220             | 30         | 0,323          |                                                                                       |
| PY060650076800 | 65*       | 76,8   | 1830   | 12    | 2,5   | 7,0                | 230             | 30         | 0,332          |                                                                                       |
| PY060700082000 | 70/2.3/4" | 82,0   | 2000   | 12    | 2,5   | 7,0                | 250             | 30         | 0,354          |                                                                                       |
| PY060760088200 | 76        | 88,2   | 2190   | 12    | 2,5   | 7,0                | 270             | 30         | 0,508          |                                                                                       |
| PY060800092200 | 80        | 92,2   | 2320   | 12    | 2,5   | 7,0                | 280             | 20         | 0,398          |                                                                                       |
| PY060900103000 | 90        | 103,0  | 2980   | 10    | 2,0   | 7,0                | 360             | 20         | 0,527          |                                                                                       |
| PY061020115000 | 102/4"    | 115,0  | 3350   | 8     | 1,5   | 7,0                | 410             | 20         | 0,589          |                                                                                       |
| PY061050118000 | 105*      | 118,0  | 3440   | 8     | 1,5   | 7,0                | 420             | 20         | 0,604          |                                                                                       |
| PY061100127400 | 110       | 127,4  | 4760   | 5     | 1,0   | 9,0                | 500             | 20         | 0,652          |                                                                                       |
| PY061200137400 | 120       | 137,4  | 5160   | 3     | 0,5   | 9,0                | 540             | 20         | 1,055          |                                                                                       |
| PY061270144400 | 127/5"    | 144,4  | 5480   | 3     | 0,5   | 9,0                | 570             | 20         | 1,109          |                                                                                       |
| PY061500168600 | 151       | 169,6  | 6840   | 3     | 0,5   | 9,0                | 680             | 20         | 1,303          |                                                                                       |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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 disponible en stock / available on stock

# PLUTONE PU (Cod. PQ)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo transparente de TPU en base de éter con espiral de refuerzo en acero inox AISI 302.** Superficie interna y externa completamente lisas para favorecer el paso de las sustancias y para facilitar la limpieza y la desinfección antes y después del uso. Altamente neutral a olores y sabores, preservando las propiedades organolépticas de las sustancias transportadas. Óptima resistencia a la hidrólisis y a los posibles ataques de microbios. **Material curing-free:** la manguera no necesita ningún proceso de vulcanización, evitando así el riesgo de extracción de residuos de vulcanización en el producto final (restos volátiles de peróxido y platino). El tubo puede transformarse en conductivo ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Aspiración de líquidos, polvo, y gránulos altamente abrasivos. Indicado para la aspiración de granos alimentarios (harinas, azúcares, sal y fruta seca); transporte de líquidos alimentarios (aceite de oliva) y farmacéuticos con concentraciones alcohólicas de hasta el 20%. Alimentario según el Reglamento EU 10/2011 (clase A, B, C, D2 y alimentos secos), FDA Regulations (Title 21 CFR 177.2600, clase D, E, F).

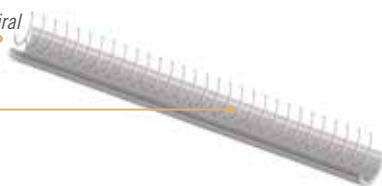
*Transparent hose made from ether-based TPU with AISI 302 stainless steel spiral. Inside and outside completely smooth to enhance flow properties and allow easy cleaning and sterilization processes. It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. The extruded, low porosity TPU tube reduces permeation problems. Highly neutral in taste and odor, it preserves the organoleptic properties of the medium. Very good chemical resistance to acids and alkaline solutions and good impermeability. Versatile rubber resistant also to oils and fats under common use conditions.*

**Curing-free material:** Plutone PU does not need any vulcanization process, therefore it prevents the risk of leaching of curing agent residues into the end product (peroxide or platinum volatile rests) Food grade according to EU Regulation 10/2011 (classes A,B,C, D2 and E); FDA regulations (Title 21 CFR 177.2600, classes D,E,F).

- Suction of powders and high abrasive granules. Ideal solution to convey pharmaceutical and cosmetic powders, pills, tablets of medicines; for food flours and grains, sugar, salt, dry fruit. Ideal solution to transfer olive oil and fatty food. Suitable also for food, pharmaceutical and cosmetic liquids with alcohol concentration up to max 20%.

Espirale de refuerzo en acero inox AISI 302 / Steel spiral

TPU a base de éter / Ether based TPU



## Ficha técnica / Technical data

| Código         | Ø int.  | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|---------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.  | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| PQ010080014200 | 8*      | 14,2   | 140    | 12,5  | 2,5   | 9,5                | 40              | 60         | 0,024          |
| PQ010120018000 | 12*     | 18,0   | 180    | 12,5  | 2,5   | 9,5                | 60              | 60         | 0,033          |
| PQ010160022400 | 16*     | 22,4   | 245    | 12,5  | 2,5   | 9,5                | 80              | 60         | 0,048          |
| PQ010200027000 | 20*     | 27,0   | 320    | 12,5  | 2,5   | 9,5                | 100             | 60         | 0,086          |
| PQ010250033000 | 25      | 33,0   | 460    | 10    | 2,0   | 9,5                | 130             | 60         | 0,127          |
| PQ010300038000 | 30*     | 38,0   | 535    | 10    | 2,0   | 9,5                | 150             | 60         | 0,146          |
| PQ010320040400 | 32*     | 40,4   | 595    | 10    | 2,0   | 8,5                | 160             | 60         | 0,155          |
| PQ010380047000 | 38      | 47,0   | 740    | 10    | 2,0   | 8,5                | 190             | 30         | 0,120          |
| PQ010400049200 | 40*     | 49,2   | 790    | 10    | 2,0   | 8,5                | 200             | 30         | 0,126          |
| PQ010508060800 | 50,8/2" | 60,8   | 1170   | 7,5   | 1,5   | 8                  | 250             | 30         | 0,263          |
| PQ010600071800 | 60*     | 71,8   | 1580   | 7,5   | 1,5   | 8                  | 300             | 30         | 0,310          |
| PQ010630074800 | 63*     | 74,8   | 1655   | 7,5   | 1,5   | 8                  | 320             | 30         | 0,323          |
| PQ010760088200 | 76*     | 88,2   | 2030   | 7,5   | 1,5   | 7                  | 380             | 30         | 0,508          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

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# PLUTONE PF

(Cod. PF)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo de color rojo con raya blanca, de goma TPE-S higiénica, con espiral de acero y refuerzo textil.** Superficies interna y externa completamente lisas para favorecer el paso de sustancias y para facilitar la limpieza y la desinfección antes y después del uso. Características de la cobertura: excelente resistencia al ozono, al envejecimiento, a los rayos UV y a los fenómenos atmosféricos.

El tubo de TPE-S extruido, con mínima porosidad, reduce los riesgos de infiltración. Producto con tolerancias específicas más rigurosas respecto al equivalente en goma. Altamente neutral a olores y sabores, preservando las propiedades organolépticas de las sustancias transportadas. **Material curing-free:** la manguera no necesita ningún proceso de vulcanización, evitando así el riesgo de extracción de residuos de vulcanización en el producto final (restos volátiles de peróxido y platino). Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra.

- Transporte de líquidos de naturaleza alimentaria. Solución ideal para vinos de calidad, zumos de fruta, vinagre, licores con contenido alcohólico de hasta el 50%.

Disponibile en color celeste para el pasaje de leche, yogurt, cremas, cremas ácidas, quesos frescos y otros productos lácteos (no alimentos grasos).

*Red cover hose with a white longitudinal stripe and white liner. it is made of TPE-S hygienic rubber, with steel spiral and polyester reinforcement. Inside and outside completely smooth to enhance flow properties and allow easy cleaning and sterilization processes. Produced with specific tighter tolerances than an equivalent vulcanized rubber hose. Cover features: excellent resistance to ozone, ageing, UV rays and weather conditions. The extruded, low porosity TPE-S tube reduces permeation problems. Highly neutral in taste and odor, it preserves the organoleptic properties of the medium. Good chemical resistance to acids and alkaline solutions and good impermeability. Versatile rubber resistant even to an alcohol concentration of 50%. **Curing-free material:** the production of Plutone PF does not need any vulcanization process, therefore it prevents the risk of leaching of curing agent residues into the end product (peroxide or platinum volatile rests). It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Food grade according to the EU Regulation 10/2011 (Classes A, B, C, D1), FDA Regulations (Title 21 CFR Parts 170 to 199 Item 177.2600, classes D, E).*

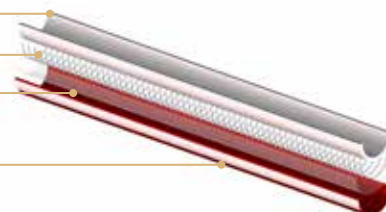
- Versatile suction and delivery hose designed to convey food liquids. Suitable for a manifold range of media such as premium wines, fruit juices, vinegar, spirits with alcoholic content up to 50%. Available in blue version to deliver milk, yogurt and dairy products (no fatty food).

Goma TPE-S higiénica / TPE-S hygienic rubber

Espiral de acero / Steel spiral

Refuerzo textil de poliéster / Textile reinforcement

Tubo de goma TPE-S higiénica / TPE-S hygienic rubber



## Ficha técnica / Technical data

| Código         | Ø int.     | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|------------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.     | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                       |
|                | mm/inch    | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                       |
| PF010140022000 | 14*        | 22     | 245    | 19    | 57    | 10                 | 40              | 60         | 0,150          |                                                                                       |
| PF010200029000 | 20         | 29     | 365    | 14    | 42    | 10                 | 60              | 60         | 0,202          |                                                                                       |
| PF010250035000 | 25         | 35     | 510    | 13    | 39    | 10                 | 100             | 60         | 0,276          |                                                                                       |
| PF010320043000 | 32         | 43     | 685    | 12    | 36    | 9                  | 130             | 60         | 0,377          |                                                                                       |
| PF010380049000 | 38         | 49     | 800    | 10    | 30    | 9                  | 150             | 30         | 0,274          |                                                                                       |
| PF010400051000 | 40         | 51     | 835    | 10    | 30    | 9                  | 160             | 30         | 0,278          |                                                                                       |
| PF010500063000 | 50         | 63     | 1325   | 12    | 36    | 8                  | 250             | 30         | 0,381          |                                                                                       |
| PF010600074000 | 60*        | 74     | 1660   | 10    | 30    | 8                  | 300             | 30         | 0,482          |                                                                                       |
| PF010630077000 | 63         | 77     | 1735   | 10    | 30    | 8                  | 320             | 30         | 0,491          |                                                                                       |
| PF010700085000 | 70*/2.3/4" | 85     | 1990   | 9     | 27    | 7                  | 350             | 30         | 0,581          |                                                                                       |
| PF010760091000 | 76         | 91     | 2120   | 9     | 27    | 7                  | 380             | 30         | 0,603          |                                                                                       |
| PF010800095000 | 80         | 95     | 2195   | 9     | 27    | 7                  | 400             | 20         | 0,497          |                                                                                       |
| PF011020118000 | 102/4"     | 118    | 3030   | 7     | 21    | 7                  | 510             | 20         | 0,657          |                                                                                       |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock





**PLUTONE BIO** (Cod. B2)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo transparente producido en material especial con contenido biológico, obtenido de fuentes naturales renovables, su producción permite una reducción de las emisiones de CO<sub>2</sub> en la atmósfera.**

**Espiral de refuerzo de acero.** Excelente resistencia a los fenómenos atmosféricos y a numerosos productos químicos. Antiestática ( $R < 10^2 \text{ Ohm/m}$ ) conectando la espiral a tierra. Idóneo para el transporte de alimentos según el reglamento Europeo UE 10/2011 (clase A, B, C, D1) y según la FDA Regulations CFR 21 (Parts 176.170). Idóneo para el transporte de leche y productos lácteos.

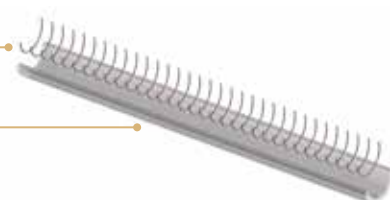
• Transporte en aspiración e impulsión de líquidos alimentarios, bebidas, zumos de fruta, vinagre y licores con concentraciones alcohólicas de hasta el 50%.

*Transparent hose produced with a special bio-based compound, obtained from natural sources, which production allows to save Co2emissions and reinforced with steel spiral. Resistant to several chemicals and to weather conditions. It can be conductive ( $R < 10^2 \text{ Ohm/m}$ ) by grounding the spiral. Food grade, according to Reg. EU 10/2011 (classes A,B, C and D1) and to FDA Regulations (CFR 21 Item 176.170). Suitable for conveying milk and dairy products.*

• Ideal solution for suction and delivery of food liquids, beverages, fruit juices, wine and liquors with up to 50% alcohol concentration as well as of milk and dairy products. It is often used for filling machines and dispensers.

Espiral de acero / Steel spiral

Tubo en BIO-PVC / BIO-based compound



Ficha técnica / Technical data

| Código         | Ø int.    | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|-----------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|--|
| Code           | Ø Int.    | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |  |
|                | mm/inch   | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |  |
| B2010060012200 | 6*        | 12,2   | 135    | 2,4   | 25    | 10                 | 30              | 60         | 0,019          |  |
| B2010080014200 | 8         | 14,2   | 160    | 2,8   | 25    | 10                 | 40              | 60         | 0,024          |  |
| B2010100016000 | 10        | 16,0   | 185    | 3,2   | 35    | 10                 | 50              | 60         | 0,028          |  |
| B2010120018000 | 12        | 18,0   | 215    | 3,6   | 35    | 10                 | 50              | 60         | 0,033          |  |
| B2010130019000 | 13*       | 19,0   | 220    | 3,8   | 35    | 10                 | 60              | 60         | 0,038          |  |
| B2010140020000 | 14        | 20,0   | 235    | 4,0   | 35    | 10                 | 60              | 60         | 0,039          |  |
| B2010160022400 | 16        | 22,4   | 280    | 4,5   | 35    | 10                 | 70              | 60         | 0,048          |  |
| B2010180024400 | 18        | 24,4   | 305    | 4,9   | 30    | 10                 | 80              | 60         | 0,070          |  |
| B2010190026000 | 19*       | 26,0   | 345    | 5,2   | 30    | 10                 | 90              | 60         | 0,075          |  |
| B2010200027000 | 20        | 27,0   | 360    | 5,4   | 30    | 10                 | 90              | 60         | 0,086          |  |
| B2010220029000 | 22        | 29,0   | 395    | 5,8   | 30    | 10                 | 100             | 60         | 0,093          |  |
| B2010250033000 | 25        | 33,0   | 520    | 6,6   | 30    | 10                 | 110             | 60         | 0,127          |  |
| B2010300038000 | 30        | 38,0   | 605    | 7,6   | 25    | 9                  | 140             | 60         | 0,146          |  |
| B2010320040400 | 32        | 40,4   | 675    | 8,1   | 25    | 9                  | 140             | 60         | 0,155          |  |
| B2010350043400 | 35        | 43,4   | 720    | 8,7   | 25    | 9                  | 160             | 60         | 0,167          |  |
| B2010380047000 | 38        | 47,0   | 830    | 9,4   | 25    | 9                  | 170             | 30         | 0,120          |  |
| B2010400049000 | 40        | 49,0   | 865    | 9,8   | 25    | 9                  | 180             | 30         | 0,125          |  |
| B2010420051200 | 42        | 51,2   | 925    | 10,2  | 25    | 9                  | 190             | 30         | 0,131          |  |
| B2010450054800 | 45*       | 54,8   | 1150   | 11,0  | 20    | 8,5                | 200             | 30         | 0,175          |  |
| B2010500060000 | 50        | 60,0   | 1290   | 12,0  | 20    | 8,5                | 230             | 30         | 0,259          |  |
| B2010500060800 | 50,8*1/2" | 60,8   | 1315   | 12,2  | 20    | 8,5                | 230             | 30         | 0,263          |  |
| B2010600071800 | 60        | 71,8   | 1770   | 14,4  | 17,5  | 8,5                | 270             | 30         | 0,310          |  |
| B2010630074800 | 63        | 74,8   | 1855   | 15,0  | 17,5  | 8,5                | 280             | 30         | 0,323          |  |
| B2010650076800 | 65*       | 76,8   | 1905   | 15,4  | 17,5  | 8                  | 290             | 30         | 0,332          |  |
| B2010700082000 | 70/2.3/4" | 82,0   | 2080   | 16,4  | 17,5  | 8                  | 320             | 30         | 0,354          |  |
| B2010760088200 | 76        | 88,2   | 2275   | 17,6  | 17,5  | 8                  | 340             | 30         | 0,508          |  |
| B2010800092200 | 80        | 92,2   | 2385   | 18,4  | 17,5  | 8                  | 360             | 20         | 0,398          |  |
| B2010900103000 | 90        | 103,0  | 3110   | 20,6  | 15    | 8                  | 410             | 20         | 0,527          |  |
| B2011020115000 | 102/4"    | 115,0  | 3490   | 23,0  | 10    | 8                  | 460             | 20         | 0,589          |  |
| B2011050118000 | 105*      | 118,0  | 3650   | 23,6  | 10    | 8                  | 470             | 20         | 0,604          |  |
| B2011100127400 | 110       | 127,4  | 4825   | 25,5  | 8     | 9,0                | 550             | 20         | 0,978          |  |
| B2011200137400 | 120       | 137,4  | 5230   | 27,5  | 6     | 9,0                | 600             | 20         | 1,055          |  |
| B2011270144400 | 127/5"    | 144,4  | 5550   | 28,9  | 6     | 9,0                | 640             | 20         | 1,109          |  |
| B2011500168600 | 151       | 169,6  | 6935   | 33,9  | 6     | 9,0                | 760             | 20         | 1,303          |  |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

disponible en stock / available on stock



# PLUTONE PRESS BIO

(Cod. B3)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



Tubo transparente fabricado en material especial con contenido biológico, obtenido de fuentes renovables, cuya producción permite una reducción de las emisiones de CO<sub>2</sub> en la atmósfera; refuerzo textil y espiral de acero. Excelente resistencia a los fenómenos atmosféricos y a numerosos productos químicos. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Idóneo para el transporte de alimentos según el Reglamento Europeo UE 10/2011 (clase A, B, C, D1) y según la FDA Regulations CFR 21 (Parts 176.170). Idóneo para el transporte de leche y productos lácteos.

• Ideal para el transporte y la aspiración de líquidos alimentarios, bebidas, zumos de fruta, vinagre, vino y licores con concentraciones alcohólicas de hasta el 50%. Viene además usado en máquinas de envasado y dosificación.

*Flexible hose produced with a special bio-based compound, obtained from natural sources, which production allows to save CO<sub>2</sub> emissions. Reinforced with steel spiral and polyester yarn. Resistant to several chemicals and to weather conditions. It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Food grade, according to Reg. EU 10/2011 (classes A, B, C and D1) and to FDA Regulations (CFR 21 Item 176.170). Suitable for passage of milk and dairy products.*

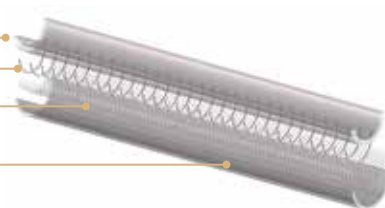
• Ideal solution for suction and delivery of food liquids, beverages, fruit juices, wine and liquors with up to 50% alcohol concentration as well as milk and dairy products. It is often used for filling machines and dispensers.

Tubo en BIO-PVC / BIO-based compound

Espiral de acero / Steel spiral

Refuerzo textil de poliéster / Textile reinforcement

Tubo en BIO-PVC / BIO-based compound



## Ficha técnica / Technical data

| Código         | Ø int.     | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|------------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.     | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                       |
|                | mm/inch    | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                       |
| B3010100018000 | 10*        | 18     | 245    | 22    | 66    | 10                 | 30              | 60         | 0,033          |                                                                                       |
| B3010120020000 | 12*        | 20     | 280    | 19    | 57    | 10                 | 36              | 60         | 0,039          |                                                                                       |
| B3010140022000 | 14*        | 22     | 315    | 19    | 57    | 10                 | 42              | 60         | 0,048          |                                                                                       |
| B3010160025000 | 16*        | 25     | 395    | 18    | 54    | 10                 | 48              | 60         | 0,061          |                                                                                       |
| B3010180027000 | 18*        | 27     | 435    | 16    | 48    | 10                 | 54              | 60         | 0,091          |                                                                                       |
| B3010200029000 | 20*        | 29     | 475    | 14    | 42    | 10                 | 60              | 60         | 0,106          |                                                                                       |
| B3010220031000 | 22*        | 31     | 510    | 14    | 42    | 10                 | 66              | 60         | 0,111          |                                                                                       |
| B3010250035000 | 25         | 35     | 655    | 12    | 36    | 10                 | 75              | 60         | 0,146          |                                                                                       |
| B3010300040000 | 30         | 40     | 765    | 12    | 36    | 9                  | 90              | 60         | 0,184          |                                                                                       |
| B3010320043000 | 32         | 43     | 890    | 11    | 33    | 9                  | 96              | 60         | 0,214          |                                                                                       |
| B3010350046000 | 35         | 46     | 960    | 10    | 30    | 9                  | 105             | 60         | 0,225          |                                                                                       |
| B3010380049000 | 38         | 49     | 1030   | 10    | 30    | 9                  | 110             | 30         | 0,198          |                                                                                       |
| B3010400051000 | 40         | 51     | 1080   | 10    | 30    | 9                  | 120             | 30         | 0,202          |                                                                                       |
| B3010450058000 | 45         | 58     | 1505   | 9     | 27    | 8                  | 140             | 30         | 0,241          |                                                                                       |
| B3010500063000 | 50         | 63     | 1650   | 8     | 24    | 8                  | 150             | 30         | 0,286          |                                                                                       |
| B3010600074000 | 60*        | 74     | 2080   | 7     | 21    | 8                  | 180             | 30         | 0,363          |                                                                                       |
| B3010630077000 | 63         | 77     | 2175   | 7     | 21    | 8                  | 190             | 30         | 0,379          |                                                                                       |
| B3010700085000 | 70*/2.3/4" | 85     | 2525   | 6     | 18    | 7                  | 210             | 30         | 0,469          |                                                                                       |
| B3010760091000 | 76         | 91     | 2685   | 6     | 18    | 7                  | 230             | 30         | 0,603          |                                                                                       |
| B3010800095000 | 80*        | 95     | 2790   | 6     | 18    | 7                  | 240             | 20         | 0,498          |                                                                                       |
| B3010900106000 | 90*        | 106    | 3435   | 5     | 15    | 7                  | 270             | 20         | 0,760          |                                                                                       |
| B3011020118000 | 102*/4"    | 118    | 3850   | 5     | 15    | 7                  | 310             | 20         | 0,801          |                                                                                       |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock



**Tubo transparente de especial Bio-compound, obtenido de fuentes renovables naturales, cuya producción y eliminación permiten la reducción de las emisiones de CO<sub>2</sub> a la atmósfera; reforzado con hilo de poliéster de alta tenacidad.** Excelente resistencia a los fenómenos atmosféricos y a numerosos productos químicos. Idóneo para el transporte de alimentos según el reglamento Europeo UE 10/2011 (clase A, B, C, D1) y según la FDA Regulations CFR 21 (Parts 176.170). Idóneo para el transporte de leche y productos lácteos.

• Transporte de líquidos valimentarios, bebidas, zumo de frutas, vinagre, vino y licores con una graduación alcohólica de hasta un 50%. Viene además usado en máquinas de envasado y dosificación.

*Transparent hose produced with a special bio-based compound, obtained from natural sources, which production allows to save CO<sub>2</sub> emissions. High tenacity polyester reinforcement. Resistant to several chemicals and to weather conditions. Food grade, according to Reg. EU n°10/2011 (classes A,B, C and D1) and to FDA Regulations (CFR 21 Item 176.170). Suitable for passage of milk and dairy products.*

• *Ideal solution for delivery of food liquids, beverages, fruit juices, wine and liquors with up to 50% alcohol concentration as well as milk and dairy products .It is often used for filling machines and dispensers.*



Tubo en BIO-PVC / BIO-based compound

Refuerzo textil de poliéster

Textile reinforcement

Tubo en BIO-PVC

BIO-based compound



#### Ficha técnica / Technical data

| Código         | Ø int.  | Ø Est. | Peso   | P.T.  | P.R.  | R. de curvatura | Lg. Rollo  | Vol.  |      |
|----------------|---------|--------|--------|-------|-------|-----------------|------------|-------|------|
| Code           | Ø Int.  | Ø Out. | Weight | W.P.  | B.P.  | Bending         | Coil lgth. | Vol.  |      |
|                | mm/inch | mm     | g/m    | [bar] | [bar] | mm              | m          | m³    |      |
| B1010080014000 | 8       | 14     | 130    | 23    | 69    | 40              | 100        | 0,032 |      |
| B1010090015000 | 9*      | 15     | 140    | 19    | 57    | 50              | 100        | 0,036 |      |
| B1010100015000 | 10*     | 15     | 120    | 16    | 48    | 50              | 100        | 0,036 |      |
| B1010100016000 | 10      | 16     | 150    | 16    | 48    | 50              | 100        | 0,041 |      |
| B1010120017000 | 12*     | 17     | 140    | 12    | 36    | 60              | 100        | 0,044 |      |
| B1010120018000 | 12      | 18     | 175    | 12    | 36    | 60              | 100        | 0,050 |      |
| B1010125018500 | 12,5*   | 18,5   | 180    | 12    | 36    | 60              | 100        | 0,051 |      |
| B1010130018000 | 13*     | 18     | 150    | 11    | 33    | 70              | 100        | 0,050 |      |
| B1010130019000 | 13      | 19     | 185    | 11    | 33    | 70              | 100        | 0,058 |      |
| B1010150020000 | 15*     | 20     | 170    | 11    | 33    | 80              | 100        | 0,081 |      |
| B1010150021000 | 15*     | 21     | 210    | 11    | 33    | 80              | 100        | 0,084 |      |
| B1010160021000 | 16*     | 21     | 180    | 10    | 30    | 80              | 100        | 0,084 |      |
| B1010160022000 | 16      | 22     | 220    | 10    | 30    | 80              | 100        | 0,095 | 50 m |
| B1010190025000 | 19*     | 25     | 255    | 9     | 27    | 100             | 100        | 0,117 |      |
| B1010190026000 | 19      | 26     | 305    | 9     | 27    | 100             | 100        | 0,120 | 50 m |
| B1010250032000 | 25*     | 32     | 385    | 8     | 24    | 130             | 100        | 0,176 |      |
| B1010250033000 | 25      | 33     | 450    | 8     | 24    | 130             | 100        | 0,181 | 50 m |
| B1010300038000 | 30      | 38     | 525    | 6     | 18    | 150             | 50         | 0,141 |      |
| B1010320041000 | 32*     | 41     | 630    | 5     | 15    | 160             | 50         | 0,165 |      |
| B1010320042000 | 32      | 42     | 710    | 5     | 15    | 160             | 50         | 0,168 |      |
| B1010380048000 | 38      | 48     | 825    | 4     | 12    | 190             | 50         | 0,271 |      |
| B1010400050000 | 40      | 50     | 865    | 4     | 12    | 200             | 50         | 0,303 |      |
| B1010500062000 | 50*     | 62     | 1290   | 4     | 12    | 250             | 50         | 0,391 |      |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

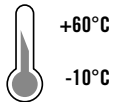
Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

disponible en stock / available on stock



# ARIANNA TA

(Cod. A5)



**Tubo de PVC, con refuerzo textil en poliéster de alta tenacidad.** Transparente para facilitar el control de las sustancias transportadas; resistente a los agentes atmosféricos y a gran parte de los productos químicos. Idóneo para el transporte de alimentos según el Reglamento Europeo UE 10/2011 (clase A, B, C).

• Tubo para el transporte de líquidos y sustancias alimentarias. Viene además usado en máquinas de envasado y dosificación.

*Transparent PVC-P hose reinforced by high tenacity polyester yarn. Resistant to most chemicals and weather agents. Totally clear for an easy detection of the media transferred. Food grade, according to EU 10/2011 (classi A, B, C).*

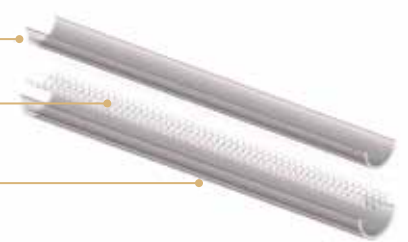
• Delivery of liquids and food grade substances. It is often used for filling machines and dispensers.



Tubo de PVC-P / PVC hose

Refuerzo textil de poliéster / Textile reinforcement

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø Int.  | Ø Est. | Peso   | P.T.  | P.R.  | R. de curvatura | Lg. Rollo  | Vol.  | JP       |
|----------------|---------|--------|--------|-------|-------|-----------------|------------|-------|----------|
| Code           | Ø Int.  | Ø Out. | Weight | W.P.  | B.P.  | Bending         | Coil lgth. | Vol.  |          |
|                | mm/inch | mm     | g/m    | [bar] | [bar] | mm              | m          | m³    |          |
| A5010060011000 | 6*      | 11     | 85     | 21    | 63    | 30              | 100        | 0,023 |          |
| A5010060012000 | 6       | 12     | 105    | 21    | 63    | 30              | 100        | 0,025 |          |
| A5010080013000 | 8*      | 13     | 105    | 23    | 69    | 40              | 100        | 0,028 |          |
| A5010080014000 | 8       | 14     | 130    | 23    | 69    | 40              | 100        | 0,032 |          |
| A5010090015000 | 9*      | 15     | 140    | 18    | 54    | 50              | 100        | 0,036 |          |
| A5010100015000 | 10*     | 15     | 125    | 16    | 48    | 50              | 100        | 0,036 |          |
| A5010100016000 | 10      | 16     | 155    | 16    | 48    | 50              | 100        | 0,041 |          |
| A5010120017000 | 12*     | 17     | 140    | 12    | 36    | 60              | 100        | 0,044 |          |
| A5010120018000 | 12      | 18     | 175    | 12    | 36    | 60              | 100        | 0,050 |          |
| A5010125018500 | 12,5*   | 18,5   | 180    | 12    | 36    | 60              | 100        | 0,051 |          |
| A5010130019000 | 13      | 19     | 185    | 11    | 33    | 70              | 100        | 0,058 | 50/100 m |
| A5010150020000 | 15*     | 20     | 170    | 11    | 33    | 80              | 50         | 0,034 |          |
| A5010150021000 | 15*     | 21     | 210    | 11    | 33    | 80              | 50         | 0,035 |          |
| A5010150023000 | 15*     | 23     | 295    | 11    | 33    | 80              | 50         | 0,042 |          |
| A5010160021000 | 16*     | 21     | 180    | 10    | 30    | 80              | 50         | 0,035 |          |
| A5010160022000 | 16      | 22     | 225    | 10    | 30    | 80              | 50         | 0,041 |          |
| A5010190025000 | 19*     | 25     | 260    | 9     | 27    | 100             | 50         | 0,074 |          |
| A5010190026000 | 19      | 26     | 305    | 9     | 27    | 100             | 50         | 0,075 |          |
| A5010250032000 | 25*     | 32     | 390    | 8     | 24    | 130             | 50         | 0,105 |          |
| A5010250033000 | 25      | 33     | 450    | 8     | 24    | 130             | 50         | 0,107 |          |
| A5010300038000 | 30      | 38     | 530    | 6     | 18    | 150             | 50         | 0,141 |          |
| A5010320042000 | 32      | 42     | 715    | 5     | 15    | 160             | 50         | 0,168 |          |
| A5010380048000 | 38      | 48     | 835    | 4     | 12    | 190             | 50         | 0,271 |          |
| A5010400050000 | 40      | 50     | 870    | 4     | 12    | 200             | 50         | 0,303 |          |
| A5010500062000 | 50*     | 62     | 1300   | 4     | 12    | 250             | 50         | 0,391 |          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

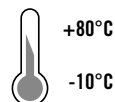
Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

**JP** disponible en stock / available on stock



# CLEANWASH

(Cod. YO CH)



**Tubo de color azul, de PVC idóneo al contacto con alimentos con doble refuerzo téxtil en poliéster de alta tenacidad.** Superficies interna y externa completamente lisas para favorecer el paso de las sustancias y para facilitar su limpieza y desinfección antes y después del uso. Nueva cubierta exterior en formulación especial antigrasa, que garantiza una mayor resistencia de la manguera durante las operaciones de limpieza y desinfección en la industria alimentaria.

Manejable, flexible y resistente al ozono, agentes atmosféricos, detergentes y sustancias químicas. Idóneo para el transporte de alimentos según el Reglamento Europeo Reg. UE 10/2011 (clase A,B, C).

- Diseñado expresamente para el paso de agua caliente para la limpieza e higienización a alta presión y a temperaturas elevadas (50 bar a 70°C) en la industria alimentaria.

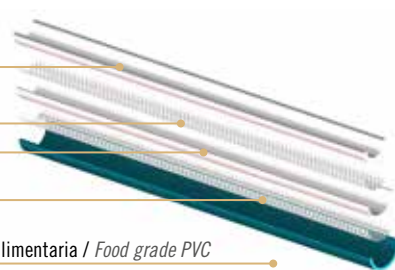
*Light blue hose made of food grade vinyl compound and with double high tenacity polyester reinforcement. Inside and outside completely smooth to enhance flow properties and allow an easy cleaning and sterilization processes. Outer cover made with a **special grease-proof formulation**, to make the hose more resistant during cleaning and disinfection operations in the food processing industries. Specially conceived for the food industry, to deliver hot water and solutions for high pressure cleaning and sanitation, 50 bar at temperatures up to 70°C. Cleanwash is easy to handle, flexible as well as resistant to ozone, weather conditions, to most detergents and chemicals. Food grade, according to EU 10/2011(classes A, B, C).*

- Delivery of hot water and solutions for cleaning in food industry, sanitation of silos, refrigerating rooms and whereas a high-purity standard is requested.

Tubo en PVC de calidad alimentaria / Food grade PVC

Double refuerzo textil de poliéster / Double textile reinforcement

Tubo en PVC de calidad alimentaria / Food grade PVC



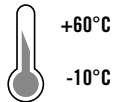
## Ficha técnica / Technical data

| Código                                                                                                                                                         | Ø int.  | Ø Est. | Peso   | P.T.  | R. de curvatura | Lg. Rollo  | Vol.  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|--------|-------|-----------------|------------|-------|--|
| Code                                                                                                                                                           | Ø Int.  | Ø Out. | Weight | W.P.  | Bending         | Coil lgth. | Vol.  |  |
|                                                                                                                                                                | mm/inch | mm     | g/m    | [bar] | mm              | m          | m³    |  |
| <b>YCH10120022000</b>                                                                                                                                          | 12      | 22     | 370    | 90    | 120             | 100        | 0,097 |  |
| *Disponible bajo demanda. Consulte con ventas para más información y cantidades / *Available on request, contact our sales office for more info and quantities |         |        |        |       |                 |            |       |  |
| Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity         |         |        |        |       |                 |            |       |  |

disponible en stock / available on stock

# NETTUNO PU

(Cod. NR)



Tubo transparente de PVC, extracto interior en TPU a base de éter y espiral de refuerzo de PVC rígido antichoque color marfil; completamente liso internamente, ligero y muy flexible. Resistente al agentes atmosféricos y la hidrólisis. Pared y sustrato de grado alimenticio, así como la espiral. Versión antiestática (con hilo de cobre) según pedido. Idóneo para el transporte de alimentos según la Regulación Europea UE 10/2011 (clase A,B,C).

• Industria alimentaria: aspiración e impulsión de polvos alimentarios como harina, alimentos liofilizados, granos, especias, azúcar y piensos. Industria de bebidas: paso de bebidas con concentraciones alcohólicas de hasta el 20%.

*Transparent hose made with PVC-P and ether based TPU liner, reinforced with an ivory anti-shock rigid PVC spiral. Completely smooth inside, light and very flexible. Resistant to loads, atmospherical agents and to a wide range of chemicals, as well as to Hydrolysis. Food grade hose liner, cover and rigid PVC spiral, making Nettuno PU a total food hose. The antistatic version with copper wire is available upon request. Food grade according to EU Regulation 10/2011 (classes A, B, C).*

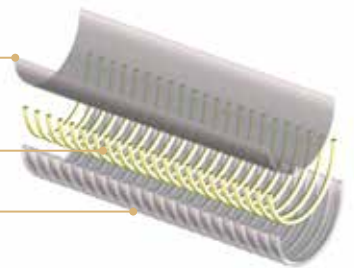
• Ideal solution for suction and delivery of food powders like flours, light grains, freeze dried foodstuffs. For beverages with alcohol concentration up to 20%.



Tubo de TPU / TPU inner layer

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |  |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|---------------------------------------------------------------------------------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |                                                                                       |
|                | mm/inch     | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |                                                                                       |
| NR010250000000 | 25*         | 2,7          | 3,4          | 310    | 5,0   | 15    | 7                  | 125             | 30         | 0,061          | NR02                                                                                  |
| NR010300000000 | 30*         | 2,8          | 3,5          | 380    | 5,0   | 15    | 7                  | 150             | 30         | 0,071          |                                                                                       |
| NR010320000000 | 31,8/1.1/4" | 2,9          | 3,6          | 420    | 5,0   | 15    | 7                  | 155             | 30         | 0,100          |                                                                                       |
| NR010350000000 | 35*         | 3,0          | 3,7          | 470    | 5,0   | 15    | 7                  | 170             | 30         | 0,109          |                                                                                       |
| NR010380000000 | 38,1/1.1/2" | 3,1          | 3,9          | 530    | 5,0   | 15    | 7                  | 185             | 30         | 0,118          |                                                                                       |
| NR010400000000 | 40          | 3,1          | 4,0          | 560    | 5,0   | 15    | 7                  | 195             | 30         | 0,123          |                                                                                       |
| NR010450000000 | 45*         | 3,1          | 4,3          | 660    | 5,0   | 15    | 7                  | 215             | 30         | 0,172          |                                                                                       |
| NR010500000000 | 50          | 3,3          | 4,7          | 790    | 5,0   | 15    | 7                  | 235             | 30         | 0,171          |                                                                                       |
| NR010520000000 | 50,8/2"     | 3,3          | 4,7          | 800    | 5,0   | 15    | 7                  | 235             | 30         | 0,173          |                                                                                       |
| NR010550000000 | 55*         | 3,4          | 4,8          | 890    | 5,0   | 15    | 7                  | 255             | 30         | 0,279          |                                                                                       |
| NR010570000000 | 57*         | 3,4          | 4,8          | 930    | 5,0   | 15    | 7                  | 265             | 30         | 0,288          |                                                                                       |
| NR010600000000 | 60          | 3,4          | 4,8          | 970    | 5,0   | 15    | 7                  | 275             | 30         | 0,301          |                                                                                       |
| NR010630000000 | 63,5/2.1/2" | 3,5          | 4,8          | 1040   | 5,0   | 15    | 7                  | 290             | 30         | 0,316          |                                                                                       |
| NR010650000000 | 65*         | 3,5          | 4,8          | 1060   | 5,0   | 15    | 7                  | 290             | 30         | 0,322          |                                                                                       |
| NR010700000000 | 70/2.3/4"   | 3,7          | 5,1          | 1180   | 5,0   | 15    | 7                  | 320             | 30         | 0,346          |                                                                                       |
| NR010760000000 | 76,2/3"     | 3,9          | 5,4          | 1380   | 5,0   | 15    | 7                  | 340             | 30         | 0,626          |                                                                                       |
| NR010800000000 | 80*         | 4,1          | 5,7          | 1510   | 4,0   | 12    | 7                  | 365             | 30         | 0,658          |                                                                                       |
| NR010900000000 | 90*         | 4,4          | 6,0          | 1830   | 4,0   | 12    | 7                  | 420             | 30         | 0,783          |                                                                                       |
| NR011000000000 | 100*        | 4,7          | 6,5          | 2170   | 4,0   | 12    | 7                  | 470             | 30         | 0,868          |                                                                                       |
| NR011020000000 | 102/4"      | 4,7          | 6,5          | 2210   | 4,0   | 12    | 7                  | 470             | 30         | 0,883          |                                                                                       |
| NR011000000000 | 110*        | 5,1          | 7,0          | 2590   | 4,0   | 12    | 6                  | 520             | 30         | 1,270          |                                                                                       |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock

# SATURNO YELLOW (Cod. SY)



**Tubo de PVC-P de color amarillo transparente con espiral de refuerzo de PVC rígido a prueba de choques de color marfil.** Superficie interna completamente lisa y superficie externa semilisa. Ligero y maneable. Muy resistente al aplastamiento, a los agentes atmosféricos y a numerosas sustancias químicas. Alimentaria según la Regulación Europea Reg. UE 10/2011 (clase A, B, C).

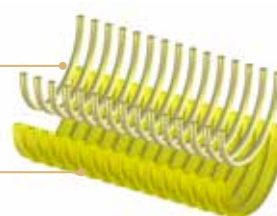
• Riegos agrícolas, aspiración e impulsión de agua y líquidos industriales, líquidos alimentarios, fertilizantes y soluciones usadas en el sector agrícola. Para camiones cisterna y maquinaria agrícola.

*Transparent yellow PVC-P hose reinforced with an ivory anti-shock rigid PVC spiral. Inside surface smooth, light corrugation outside. Strong and flexible, resistant to crushing, atmospheric agents and most chemicals. Suitable for suction and delivery of food liquids, according to EU 10/2011 (classes A, B, C).*

• Excellent in agriculture, for irrigation and suction of liquids, fertilizers and solutions used in agriculture. Used on tank trucks

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral

Tubo de PVC-P / PVC hose



## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch     | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| SY010190000000 | 19,1/3/4"   | 2,2          | 2,9          | 200    | 5,0   | 15    | 6                  | 110             | 50         | 0,046          |
| SY010200000000 | 20          | 2,2          | 2,9          | 210    | 5,0   | 15    | 6                  | 110             | 50         | 0,048          |
| SY010220000000 | 22          | 2,3          | 3,0          | 240    | 5,0   | 15    | 6                  | 130             | 50         | 0,061          |
| SY010250000000 | 2*          | 2,3          | 3,0          | 270    | 5,0   | 15    | 6                  | 140             | 50         | 0,078          |
| SY010255000000 | 25,5        | 2,3          | 3,0          | 280    | 5,0   | 15    | 6                  | 140             | 50         | 0,079          |
| SY010300000000 | 30          | 2,3          | 3,1          | 330    | 5,0   | 15    | 6                  | 170             | 50         | 0,116          |
| SY010320000000 | 31,8/1.1/4" | 2,4          | 3,2          | 360    | 5,0   | 15    | 6                  | 180             | 50         | 0,122          |
| SY010325000000 | 32,5        | 2,4          | 3,2          | 370    | 5,0   | 15    | 6                  | 180             | 50         | 0,124          |
| SY010350000000 | 35          | 2,5          | 3,3          | 410    | 5,0   | 15    | 6                  | 195             | 50         | 0,133          |
| SY010380000000 | 38,1/1.1/2" | 2,6          | 3,4          | 460    | 5,0   | 15    | 6                  | 210             | 50         | 0,172          |
| SY010390000000 | 39          | 2,6          | 3,4          | 470    | 5,0   | 15    | 6                  | 215             | 50         | 0,176          |
| SY010400000000 | 40          | 2,6          | 3,5          | 490    | 5,0   | 15    | 6                  | 220             | 50         | 0,180          |
| SY010450000000 | 45          | 2,7          | 3,6          | 570    | 5,0   | 15    | 6                  | 250             | 50         | 0,234          |
| SY010500000000 | 50          | 3,0          | 4,0          | 710    | 5,0   | 15    | 6                  | 270             | 50         | 0,251          |
| SY010520000000 | 50,8/2"     | 3,0          | 4,0          | 720    | 5,0   | 15    | 6                  | 270             | 50         | 0,254          |
| SY010550000000 | 55          | 3,0          | 4,0          | 780    | 5,0   | 15    | 6                  | 310             | 50         | 0,363          |
| SY010570000000 | 57          | 3,0          | 4,0          | 800    | 5,0   | 15    | 6                  | 310             | 50         | 0,374          |
| SY010600000000 | 60          | 3,0          | 4,2          | 870    | 5,0   | 15    | 6                  | 330             | 50         | 0,394          |
| SY010630000000 | 63,5/2.1/2" | 3,0          | 4,2          | 920    | 5,0   | 15    | 6                  | 350             | 50         | 0,414          |
| SY010650000000 | 65          | 3,1          | 4,3          | 970    | 5,0   | 15    | 6                  | 360             | 50         | 0,636          |
| SY010700000000 | 70/2.3/4"   | 3,2          | 4,5          | 1050   | 4,0   | 12    | 6                  | 450             | 50         | 0,683          |
| SY010750000000 | 75          | 3,3          | 4,6          | 1160   | 4,0   | 12    | 6                  | 500             | 50         | 0,727          |
| SY010760000000 | 76,2/3"     | 3,3          | 4,6          | 1180   | 4,0   | 12    | 6                  | 500             | 50         | 0,738          |
| SY010800000000 | 80          | 3,6          | 5,0          | 1350   | 4,0   | 12    | 6                  | 550             | 50         | 0,778          |
| SY010900000000 | 90          | 4,2          | 6,0          | 1870   | 3,0   | 9     | 6                  | 630             | 30         | 0,588          |
| SY011000000000 | 100         | 4,6          | 6,4          | 2210   | 3,0   | 9     | 6                  | 710             | 30         | 0,866          |
| SY011020000000 | 102/4"      | 4,6          | 6,4          | 2250   | 3,0   | 9     | 6                  | 710             | 30         | 0,882          |
| SY011100000000 | 110         | 5,0          | 6,7          | 2560   | 3,0   | 9     | 6                  | 720             | 30         | 1,264          |
| SY011200000000 | 120         | 5,0          | 6,8          | 2810   | 3,0   | 9     | 6                  | 730             | 30         | 1,368          |
| SY011270000000 | 127/5"      | 5,1          | 6,9          | 3030   | 3,0   | 9     | 6                  | 740             | 30         | 1,442          |
| SY011500000000 | 151,5       | 5,9          | 7,8          | 4160   | 3,0   | 9     | 6                  | 800             | 20         | 1,337          |
| SY011520000000 | 152,4/6"    | 5,9          | 7,8          | 4180   | 3,0   | 9     | 6                  | 800             | 20         | 1,344          |
| SY012000000000 | 200         | 6,5          | 10,0         | 6510   | 2,0   | 6     | 4,5                | 1000            | 10         | 1,760          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

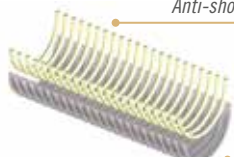
Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# NETTUNO

(Cod. NQ)



Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral



Tubo de PVC-P / PVC hose

**Tubo transparente de PVC-P con espiral de refuerzo de PVC rígido antichoque color marfil.** Superficie interna lisa, ligero y muy flexible. Pared y espiral para al contacto con alimentos. Resistente al agentes atmosféricos y a numerosos productos químicos. Versión antiestática (con hilo de cobre) según pedido. Alimentaria según la Regulación Europea Reg. UE 10/2011 (clase A, B, C, D1); paso de leche y derivados.

• Industria alimentaria: aspiración e impulsión de líquidos alimentarios como zumos de fruta, leche y derivados, vinagre, vino y licores con concentraciones alcohólicas de hasta al 50%.

*Transparent hose made with PVC-P, reinforced with an ivory anti-shock rigid PVC spiral. Smooth inside, light and very flexible. Resistant to loads, atmospheric agents and to a wide range of chemicals. Food grade wall and hard plastic spiral that make Nettuno a total food hose. The antistatic version with copper wire is available upon request. Food grade according to EU Regulation n° 10/2011 (classes A, B, C, D1) and suitable for passage of milk and dairy products.*

• Ideal solution for suction and delivery of food powders like flours, light grains, freeze dried foodstuffs as well as for liquid in general, beverages, juices, milk and by-products, vinegar, wines and liquor with alcohol concentration up to 50%.

## Ficha técnica / Technical data

| Código         | Ø int.      | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo                        | Vol.           |           |
|----------------|-------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|----------------------------------|----------------|-----------|
| Code           | Ø Int.      | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth.                       | Vol.           |           |
|                | mm/inch     | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m                                | m <sup>3</sup> |           |
| NQ010130000000 | 13          | 2,4          | 2,7          | 150    | 10,0  | 30    | 7                  | 75              | 50                               | 0,033          |           |
| NQ010150000000 | 15*         | 2,5          | 2,8          | 180    | 9,0   | 27    | 7                  | 85              | 50                               | 0,037          |           |
| NQ010160000000 | 16          | 2,5          | 2,8          | 190    | 8,0   | 24    | 7                  | 90              | 50                               | 0,039          |           |
| NQ010190000000 | 19,1*3/4"   | 2,6          | 2,9          | 230    | 7,0   | 21    | 7                  | 110             | 50                               | 0,054          |           |
| NQ010200000000 | 20          | 2,6          | 2,9          | 240    | 7,0   | 21    | 7                  | 110             | 50                               | 0,056          |           |
| NQ010220000000 | 22*         | 2,6          | 2,9          | 260    | 6,7   | 20    | 7                  | 110             | 50                               | 0,060          |           |
| NQ010250000000 | 25          | 2,6          | 2,9          | 290    | 6,0   | 18    | 7                  | 130             | 50                               | 0,078          |           |
| NQ010300000000 | 30          | 2,7          | 3,0          | 360    | 5,0   | 15    | 7                  | 150             | 50                               | 0,115          |           |
| NQ010320000000 | 31,8/1.1/4" | 2,7          | 3,0          | 380    | 5,0   | 15    | 7                  | 155             | 50                               | 0,121          |           |
| NQ010350000000 | 35          | 2,7          | 3,5          | 440    | 4,0   | 12    | 7                  | 170             | 50                               | 0,134          |           |
| NQ010380000000 | 38,1/1.1/2" | 2,9          | 3,7          | 510    | 4,0   | 12    | 7                  | 180             | 50                               | 0,146          |           |
| NQ010390000000 | 39*         | 2,9          | 3,7          | 530    | 4,0   | 12    | 7                  | 190             | 50                               | 0,178          |           |
| NQ010400000000 | 40          | 3,0          | 3,8          | 560    | 4,0   | 12    | 7                  | 195             | 50                               | 0,183          |           |
| NQ010450000000 | 45          | 3,2          | 4,1          | 680    | 4,0   | 12    | 7                  | 215             | 50                               | 0,238          |           |
| NQ010500000000 | 50          | 3,3          | 4,5          | 810    | 4,0   | 12    | 7                  | 235             | 50                               | 0,255          | NQ01/NQ02 |
| NQ010515000000 | 51,5*       | 3,3          | 4,5          | 830    | 4,0   | 12    | 7                  | 245             | 50                               | 0,261          |           |
| NQ010520000000 | 50,8/2"     | 3,3          | 4,5          | 820    | 4,0   | 12    | 7                  | 235             | 50                               | 0,258          |           |
| NQ010550000000 | 55*         | 3,4          | 4,6          | 910    | 4,0   | 12    | 7                  | 255             | 50                               | 0,370          |           |
| NQ010570000000 | 57*         | 3,4          | 4,6          | 940    | 4,0   | 12    | 7                  | 265             | 50                               | 0,381          |           |
| NQ010600000000 | 60          | 3,4          | 4,6          | 990    | 4,0   | 12    | 7                  | 275             | 50                               | 0,399          |           |
| NQ010630000000 | 63,5/2.1/2" | 3,4          | 4,7          | 1060   | 4,0   | 12    | 7                  | 290             | 50                               | 0,420          |           |
| NQ010650000000 | 65*         | 3,5          | 4,8          | 1120   | 4,0   | 12    | 7                  | 300             | 50                               | 0,430          |           |
| NQ010700000000 | 70/2.3/4"   | 3,7          | 5,0          | 1220   | 3,0   | 9     | 7                  | 320             | 50                               | 0,461          |           |
| NQ010760000000 | 76,2/3"     | 3,9          | 5,2          | 1400   | 3,0   | 9     | 7                  | 340             | 50                               | 0,624          |           |
| NQ010770000000 | 77,7*       | 3,9          | 5,2          | 1420   | 3,0   | 9     | 7                  | 350             | 50                               | 0,634          |           |
| NQ010800000000 | 80          | 4,2          | 5,5          | 1550   | 3,0   | 9     | 7                  | 365             | 50                               | 0,655          |           |
| NQ010900000000 | 90          | 4,4          | 5,9          | 1860   | 3,0   | 9     | 7                  | 420             | 30                               | 0,733          |           |
| NQ011000000000 | 100         | 4,8          | 6,4          | 2240   | 3,0   | 9     | 7                  | 470             | 30                               | 0,812          |           |
| NQ011020000000 | 102/4"      | 4,8          | 6,4          | 2280   | 3,0   | 9     | 7                  | 470             | 30                               | 0,827          |           |
| NQ011035000000 | 103,5*      | 4,9          | 6,5          | 2360   | 3,0   | 9     | 7                  | 490             | 30                               | 0,839          |           |
| NQ011050000000 | 105*        | 4,9          | 6,5          | 2400   | 3,0   | 9     | 7                  | 490             | 30                               | 0,850          |           |
| NQ011100000000 | 110         | 5,0          | 6,7          | 2560   | 3,0   | 9     | 6                  | 520             | 30                               | 0,888          |           |
| NQ011200000000 | 120         | 5,1          | 6,8          | 2840   | 3,0   | 9     | 6                  | 650             | 30                               | 1,026          |           |
| NQ011270000000 | 127/5"      | 5,2          | 6,9          | 3060   | 3,0   | 9     | 5,5                | 680             | 30                               | 1,126          |           |
| NQ011300000000 | 130*        | 5,3          | 7,2          | 3260   | 3,0   | 9     | 5                  | 700             | 30                               | 1,155          |           |
| NQ011400000000 | 140*        | 5,7          | 7,7          | 3820   | 3,0   | 9     | 5                  | 750             | 20                               | 1,243          |           |
| NQ011500000000 | 151,5       | 6,1          | 8,2          | 4390   | 3,0   | 9     | 5                  | 780             | 20                               | 1,343          |           |
| NQ011520000000 | 152,8*      | 6,1          | 8,2          | 4420   | 3,0   | 9     | 5                  | 780             | 20                               | 1,354          |           |
| NQ011600000000 | 160*        | 6,3          | 8,8          | 4780   | 2,0   | 6     | 4,5                | 850             | 20                               | 1,421          |           |
| NQ012000000000 | 200*        | 6,5          | 10,0         | 6520   | 2,0   | 6     | 4,5                | 1000            | 10                               | 2,130          |           |
| NQ012030000000 | 203,2*/8"   | 6,5          | 10,0         | 6620   | 2,0   | 6     | 4,5                | 1000            | 10                               | 2,161          |           |
| NQ012500000000 | 250*        | 6,8          | 10,5         | 8600   | 1,5   | 4,5   | 4                  | 1800            | 10 m pz. dritti<br>10 m straight | 0,734          |           |
| NQ012540000000 | 254*/10"    | 6,8          | 10,5         | 8730   | 1,5   | 4,5   | 4                  | 1800            | 10 m pz. dritti<br>10 m straight | 0,756          |           |
| NQ013000000000 | 300*        | 7,2          | 11,1         | 11030  | 1,0   | 3     | 4                  | 2000            | 10 m pz. dritti<br>10 m straight | 1,038          |           |
| NQ013050000000 | 304,8*/12"  | 7,2          | 11,1         | 11200  | 1,0   | 3     | 4                  | 2000            | 10 m pz. dritti<br>10 m straight | 1,069          |           |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock



# NETTUNO ENO (Cod. NQ EN)



Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral



Tubo de PVC-P / PVC hose

**Tubo transparente de PVC-P, con espiral de refuerzo de PVC rígido antichoque de color rojo.** Superficie interna completamente lisa para favorecer el flujo de las substancias transportadas; la más ligera y manejable de la gama diseñada para la enología. Pared y espiral para al contacto con alimentos. Muy resistente al aplastamiento, a los agentes atmosféricos y a numerosas substancias químicas. Versión antiestática (con hilo de cobre) según pedido. Tubo de calidad alimentaria, según el Reglamento Europeo Reg. UE 10/2011 (clase A,B, C, D1).

• Solución ideal para la aspiración y impulsión de vino, vinagre y licores con concentraciones alcohólicas de hasta el 50%. Transporte de líquidos alimentarios.

*Transparent PVC-P hose, reinforced with a red anti-shock rigid PVC spiral, designed for the wine industry. Completely smooth inside to enhance the optimization of flow properties, it is the lightest and easiest to handle hose among the products conceived for the winery. Food grade wall and hard plastic spiral. Resistance to loads, atmospheric agents and to a wide range of chemicals. The antistatic version with copper wire is available on request. Food grade according to EU 10/2011 (classes A, B, C, D1).*

• Ideal solution for suction and delivery of wines, vinegar, liquors with alcohol concentration up to 50%; delivery of food liquids in general.

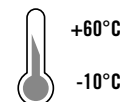
## Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo                        | Vol.           |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|----------------------------------|----------------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth.                       | Vol.           |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m                                | m <sup>3</sup> |
| NQEN0130000000 | 13*          | 2,4          | 2,7          | 150    | 10,0  | 30    | 7                  | 75              | 50                               | 0,033          |
| NQEN0150000000 | 15*          | 2,5          | 2,8          | 180    | 9,0   | 27    | 7                  | 85              | 50                               | 0,037          |
| NQEN0160000000 | 16*          | 2,5          | 2,8          | 190    | 8,0   | 24    | 7                  | 90              | 50                               | 0,039          |
| NQEN0190000000 | 19,1*/3/4"   | 2,6          | 2,9          | 230    | 7,0   | 21    | 7                  | 110             | 50                               | 0,054          |
| NQEN0200000000 | 20           | 2,6          | 2,9          | 240    | 7,0   | 21    | 7                  | 110             | 50                               | 0,056          |
| NQEN0250000000 | 25           | 2,6          | 2,9          | 290    | 6,0   | 18    | 7                  | 130             | 50                               | 0,078          |
| NQEN0300000000 | 30           | 2,7          | 3,0          | 360    | 5,0   | 15    | 7                  | 150             | 50                               | 0,115          |
| NQEN0320000000 | 31,8/1.1/4"  | 2,7          | 3,0          | 380    | 5,0   | 15    | 7                  | 155             | 50                               | 0,121          |
| NQEN0350000000 | 35           | 2,7          | 3,5          | 440    | 4,0   | 12    | 7                  | 170             | 50                               | 0,134          |
| NQEN0380000000 | 38,1/1.1/2"  | 2,9          | 3,7          | 510    | 4,0   | 12    | 7                  | 180             | 50                               | 0,146          |
| NQEN0390000000 | 39*          | 2,9          | 3,7          | 530    | 4,0   | 12    | 7                  | 190             | 50                               | 0,178          |
| NQEN0400000000 | 40           | 3,0          | 3,8          | 560    | 4,0   | 12    | 7                  | 195             | 50                               | 0,183          |
| NQEN0450000000 | 45*          | 3,2          | 4,1          | 680    | 4,0   | 12    | 7                  | 215             | 50                               | 0,238          |
| NQEN0500000000 | 50           | 3,3          | 4,5          | 810    | 4,0   | 12    | 7                  | 235             | 50                               | 0,255          |
| NQEN0515000000 | 51,5*        | 3,3          | 4,5          | 830    | 4,0   | 12    | 7                  | 245             | 50                               | 0,261          |
| NQEN0520000000 | 50,8/2"      | 3,3          | 4,5          | 820    | 4,0   | 12    | 7                  | 235             | 50                               | 0,258          |
| NQEN0550000000 | 55*          | 3,4          | 4,6          | 910    | 4,0   | 12    | 7                  | 255             | 50                               | 0,370          |
| NQEN0570000000 | 57*          | 3,4          | 4,6          | 940    | 4,0   | 12    | 7                  | 265             | 50                               | 0,381          |
| NQEN0600000000 | 60           | 3,4          | 4,6          | 990    | 4,0   | 12    | 7                  | 275             | 50                               | 0,399          |
| NQEN0630000000 | 63,5*/2.1/2" | 3,4          | 4,7          | 1060   | 4,0   | 12    | 7                  | 290             | 50                               | 0,420          |
| NQEN0650000000 | 65*          | 3,5          | 4,8          | 1120   | 4,0   | 12    | 7                  | 300             | 50                               | 0,430          |
| NQEN0700000000 | 70*/2.3/4"   | 3,7          | 5,0          | 1220   | 3,0   | 9     | 7                  | 320             | 50                               | 0,461          |
| NQEN0760000000 | 76,2/3"      | 3,9          | 5,2          | 1400   | 3,0   | 9     | 7                  | 340             | 50                               | 0,624          |
| NQEN0770000000 | 77,7*        | 3,9          | 5,2          | 1420   | 3,0   | 9     | 7                  | 350             | 50                               | 0,634          |
| NQEN0800000000 | 80           | 4,2          | 5,5          | 1550   | 3,0   | 9     | 7                  | 365             | 50                               | 0,786          |
| NQEN0900000000 | 90*          | 4,4          | 5,9          | 1860   | 3,0   | 9     | 7                  | 420             | 30                               | 0,733          |
| NQEN1000000000 | 100          | 4,8          | 6,4          | 2240   | 3,0   | 9     | 7                  | 470             | 30                               | 0,812          |
| NQEN1020000000 | 102/4"       | 4,8          | 6,4          | 2280   | 3,0   | 9     | 7                  | 470             | 30                               | 0,827          |
| NQEN1035000000 | 103,5*       | 4,9          | 6,5          | 2360   | 3,0   | 9     | 7                  | 490             | 30                               | 0,839          |
| NQEN1050000000 | 105*         | 4,9          | 6,5          | 2400   | 3,0   | 9     | 7                  | 490             | 30                               | 0,850          |
| NQEN1100000000 | 110*         | 5,0          | 6,7          | 2560   | 3,0   | 9     | 6                  | 520             | 30                               | 0,888          |
| NQEN1200000000 | 120          | 5,1          | 6,8          | 2840   | 3,0   | 9     | 6                  | 650             | 30                               | 1,368          |
| NQEN1270000000 | 127*/5"      | 5,2          | 6,9          | 3060   | 3,0   | 9     | 5,5                | 680             | 30                               | 1,126          |
| NQEN1300000000 | 130*         | 5,3          | 7,2          | 3260   | 3,0   | 9     | 5                  | 700             | 30                               | 1,155          |
| NQEN1500000000 | 151,5*       | 6,1          | 8,2          | 4390   | 3,0   | 9     | 5                  | 780             | 20                               | 1,343          |
| NQEN1520000000 | 152,8*       | 6,1          | 8,2          | 4420   | 3,0   | 9     | 5                  | 780             | 20                               | 1,354          |
| NQEN2000000000 | 200*         | 6,5          | 10,0         | 6520   | 2,0   | 6     | 4,5                | 1000            | 10                               | 2,130          |
| NQEN2030000000 | 203,2*/8"    | 6,5          | 10,0         | 6620   | 2,0   | 6     | 4,5                | 1000            | 10                               | 2,161          |
| NQEN2500000000 | 250*         | 6,8          | 10,5         | 8600   | 1,5   | 4,5   | 4                  | 1800            | 10 m pz. dritti<br>10 m straight | 0,734          |
| NQEN2540000000 | 254*/10"     | 6,8          | 10,5         | 8730   | 1,5   | 4,5   | 4                  | 1800            | 10 m pz. dritti<br>10 m straight | 0,756          |
| NQEN3000000000 | 300*         | 7,2          | 11,1         | 11030  | 1,0   | 3     | 4                  | 2000            | 10 m pz. dritti<br>10 m straight | 1,038          |
| NQEN3050000000 | 304,8*/12"   | 7,2          | 11,1         | 11200  | 1,0   | 3     | 4                  | 2000            | 10 m pz. dritti<br>10 m straight | 1,069          |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# BACCO

 (Cod. BF)


**Tubo transparente de PVC-P con espiral de refuerzo de PVC rígido antichoque de color rojo.** Interior completamente liso, robusto, pero muy flexible. Muy resistente al aplastamiento, a los agentes atmosféricos y a numerosas sustancias químicas. Pared y espiral para el contacto con alimentos. Versión antiestática (con hilo de cobre) según pedido. Tubo de calidad alimentaria, según el Reglamento Europeo Reg. UE 10/2011 (clase A, B, C, D1).

- Transporte de líquidos alimentarios, bebidas, zumo de frutas, vinagre, vino y licores con una graduación alcohólica de hasta un 50%.

*Transparent hose made with PVC-P, reinforced with a red anti-shock rigid PVC spiral. Completely smooth inside, for heavy duty thus flexible. Resistance to loads, atmospheric agents and to a wide range of chemicals.*

*Food grade wall and hard plastic spiral make Bacco a total food hose. The antistatic version with copper wire is available upon request.*

*Food grade according to EU Regulation 10/2011 (classes A, B, C, D1).*

- *Ideal solution for suction and delivery of beverages with alcohol concentration up to 50%. Suggested for wines, marcs, liquors, juices, vinegar, other beverages and food liquids.*



Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral



Tubo de PVC-P / PVC hose

#### Ficha técnica / Technical data

| Código         | Ø int.       | Min esp.     | Max esp.     | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |         |
|----------------|--------------|--------------|--------------|--------|-------|-------|--------------------|-----------------|------------|----------------|---------|
| Code           | Ø Int.       | Min wall th. | Max wall th. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |         |
|                | mm/inch      | mm           | mm           | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |         |
| BF010190000000 | 19,1*/3/4"   | 3,2          | 3,5          | 290    | 9,0   | 27    | 10                 | 110             | 50         | 0,084          |         |
| BF010200000000 | 20           | 3,2          | 3,5          | 300    | 9,0   | 27    | 10                 | 110             | 50         | 0,104          |         |
| BF010250000000 | 25           | 3,3          | 3,7          | 390    | 8,0   | 24    | 10                 | 170             | 50         | 0,083          |         |
| BF010300000000 | 30           | 3,5          | 3,9          | 490    | 8,0   | 24    | 10                 | 190             | 50         | 0,121          |         |
| BF010320000000 | 31,8/1.1/4"  | 3,5          | 3,9          | 510    | 7,0   | 21    | 10                 | 230             | 50         | 0,127          |         |
| BF010350000000 | 35           | 3,7          | 4,2          | 590    | 7,0   | 21    | 10                 | 230             | 50         | 0,167          |         |
| BF010380000000 | 38,1/1.1/2"  | 4,1          | 4,5          | 710    | 7,0   | 21    | 10                 | 260             | 50         | 0,211          |         |
| BF010390000000 | 39*          | 4,1          | 4,6          | 740    | 7,0   | 21    | 10                 | 265             | 50         | 0,216          |         |
| BF010400000000 | 40           | 4,1          | 4,6          | 750    | 7,0   | 21    | 10                 | 270             | 50         | 0,220          |         |
| BF010450000000 | 45*          | 4,4          | 4,9          | 910    | 7,0   | 21    | 10                 | 310             | 50         | 0,237          |         |
| BF010500000000 | 50           | 4,7          | 5,3          | 1090   | 6,0   | 18    | 10                 | 350             | 50         | 0,349          |         |
| BF010515000000 | 51,5*        | 4,8          | 5,3          | 1130   | 6,0   | 18    | 10                 | 360             | 50         | 0,358          |         |
| BF010520000000 | 50,8/2"      | 4,7          | 5,3          | 1100   | 6,0   | 18    | 10                 | 350             | 50         | 0,354          |         |
| BF010550000000 | 55*          | 5,0          | 5,5          | 1260   | 6,0   | 18    | 10                 | 370             | 50         | 0,570          |         |
| BF010600000000 | 60           | 5,2          | 5,8          | 1440   | 6,0   | 18    | 10                 | 415             | 50         | 0,619          |         |
| BF010630000000 | 63,5*/2.1/2" | 5,5          | 6,1          | 1620   | 6,0   | 18    | 10                 | 440             | 50         | 0,654          |         |
| BF010650000000 | 65*          | 5,5          | 6,1          | 1660   | 6,0   | 18    | 10                 | 450             | 50         | 0,667          |         |
| BF010700000000 | 70*/2.3/4"   | 5,6          | 6,3          | 1780   | 5,0   | 15    | 10                 | 480             | 50         | 0,714          |         |
| BF010760000000 | 76,2/3"      | 5,7          | 6,3          | 1950   | 5,0   | 15    | 10                 | 525             | 50         | 0,767          |         |
| BF010800000000 | 80           | 6,1          | 6,8          | 2180   | 5,0   | 15    | 10                 | 555             | 30         | 0,674          | 30/50 m |
| BF010900000000 | 90*          | 6,4          | 7,1          | 2570   | 5,0   | 15    | 10                 | 630             | 30         | 0,750          |         |
| BF011000000000 | 100          | 7,3          | 8,1          | 3270   | 5,0   | 15    | 9                  | 695             | 30         | 0,892          |         |
| BF011020000000 | 102/4"       | 7,3          | 8,1          | 3330   | 5,0   | 15    | 9                  | 695             | 30         | 0,908          |         |
| BF011100000000 | 110*         | 7,4          | 8,2          | 3610   | 4,0   | 12    | 9                  | 780             | 30         | 1,294          |         |
| BF011200000000 | 120          | 7,8          | 8,6          | 4160   | 4,0   | 12    | 9                  | 900             | 30         | 1,405          |         |
| BF011270000000 | 127*/5"      | 7,7          | 8,6          | 4350   | 4,0   | 12    | 9                  | 1000            | 30         | 1,730          |         |
| BF011500000000 | 151,5*       | 9,3          | 10,3         | 6340   | 4,0   | 12    | 8,5                | 1300            | 20         | 1,666          |         |
| BF011520000000 | 152,8*       | 9,3          | 10,3         | 6390   | 4,0   | 12    | 8,5                | 1300            | 20         | 1,679          |         |
| BF012000000000 | 200*         | 11,2         | 13,2         | 10350  | 4,0   | 12    | 8                  | 2100            | 10         | 2,192          |         |
| BF012030000000 | 203,2*/8"    | 11,2         | 13,2         | 10510  | 4,0   | 12    | 8                  | 2100            | 10         | 2,223          |         |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

 disponible en stock / available on stock



# SPIRALPRESS ENO (Cod. BS EN)



**Tubo transparente de PVC-P estudiado para el sector del vino, con espiral de PVC rígido de color roja y refuerzo textil.** Este tubo es idóneo para aplicaciones que requieran una buena resistencia a altas presiones. Estructura con espiral a vista, consiente la reducción de la fricción durante su desplazamiento. La pared y la espiral son de grado alimentario. Espiral disponible para facilitar el racorado con abrazaderas. Idóneo al contacto con alimentos según la normativa UE 10/2011 (clases A, B, C, D1).

- Transporte y aspiración de bebidas y vino con concentraciones alcohólicas de hasta el 50%.

*Transparent hose made by PVC-P, reinforced with a red anti-shock rigid PVC spiral and polyester reinforcement. Specially conceived for the wine industry and where a good resistance at high pressures is required, thanks to the textile reinforcement. The exposed PVC corrugated helix allows less resistance to dragging. Food grade hose wall and spiral. Food grade according to EU 10/2011 (classes A, B, C, D1).*

- Suction and delivery of beverages and wines with alcoholic concentration up to 50%.

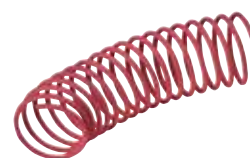


Tubo de PVC-P / PVC hose

Refuerzo textil de poliéster / Textile reinforcement

Tubo de PVC-P / PVC hose

Espiral de PVC rígido anti choque  
Anti-shock rigid PVC spiral



Espiral para facilitar el racorado con abrazadera bajo pedido (Cod. SC EN)

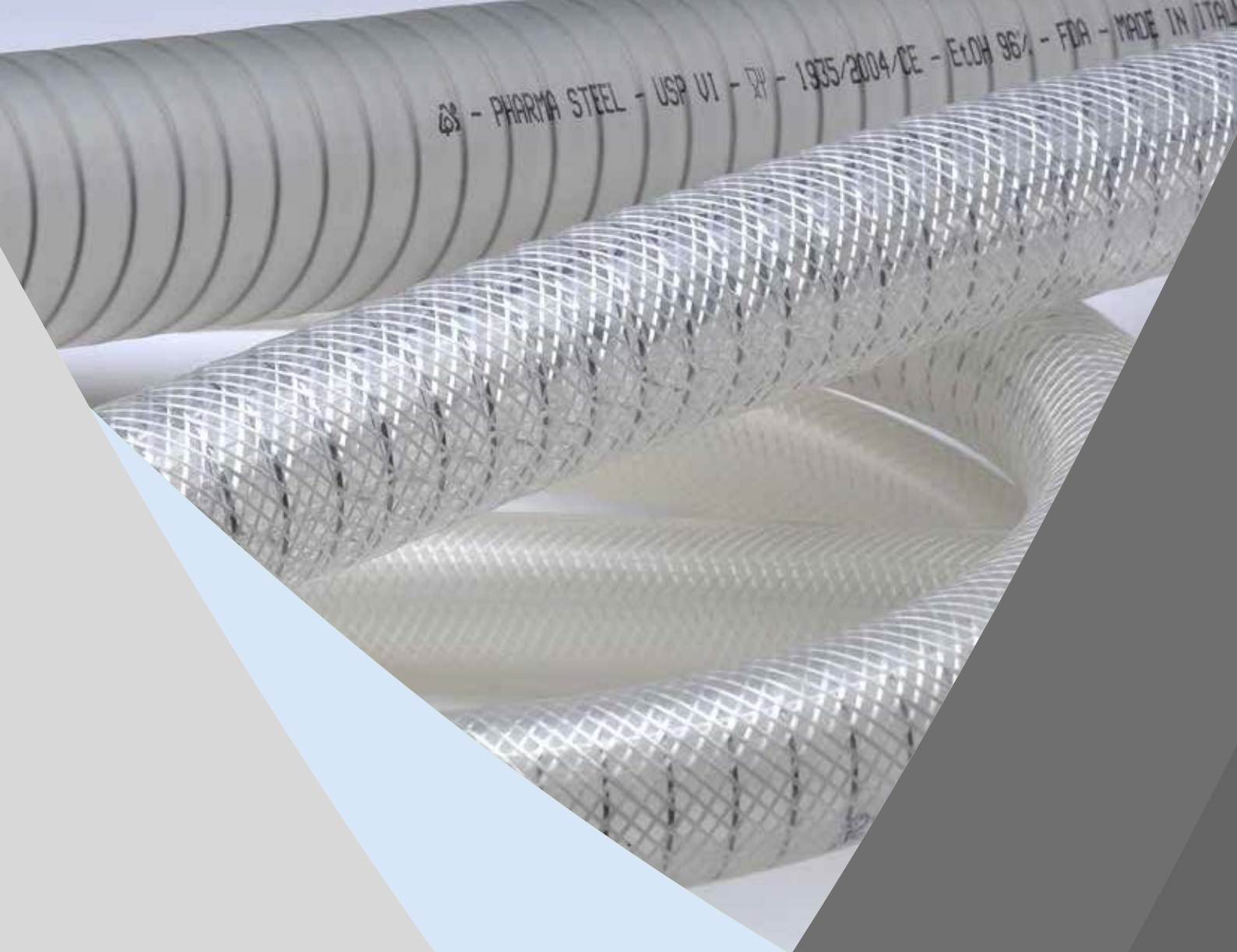
Banding coil available (Code SC EN)

## Ficha técnica / Technical data

| Código         | Ø int.      | Ø Est. | Min esp.     | Max esp.     | Peso   | P.T.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           | Lg. espiral   |
|----------------|-------------|--------|--------------|--------------|--------|-------|--------------------|-----------------|------------|----------------|---------------|
| Code           | Ø Int.      | Ø Out. | Min wall th. | Max wall th. | Weight | W.P.  | Vac.               | Bending         | Coil lgth. | Vol.           | Banding lgth. |
|                | mm          | mm     | mm           | mm           | g/m    | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> | mm            |
| BSEN0380000000 | 38,1/1.1/2" | 51,5   | 3,0          | 6,7          | 725    | 10    | 9,5                | 90              | 30         | 0,134          | 153           |
| BSEN0400000000 | 40          | 53,4   | 3,0          | 6,7          | 745    | 8     | 9,5                | 100             | 30         | 0,139          | 152           |
| BSEN0500000000 | 50          | 65,4   | 3,0          | 7,7          | 1085   | 7     | 9,5                | 160             | 30         | 0,251          | 180           |
| BSEN0508000000 | 50,8/2"     | 66,2   | 3,0          | 7,7          | 1100   | 7     | 9,5                | 160             | 30         | 0,254          | 180           |
| BSEN0600000000 | 60          | 76,8   | 3,0          | 8,4          | 1230   | 7     | 9,5                | 180             | 30         | 0,332          | 203           |
| BSEN0760000000 | 76,2/3"     | 95,8   | 3,5          | 9,8          | 1900   | 6     | 9                  | 200             | 30         | 0,414          | 225           |
| BSEN0800000000 | 80          | 100,8  | 3,5          | 10,4         | 2180   | 6     | 9                  | 210             | 30         | 0,581          | 225           |
| BSEN1000000000 | 100         | 120,8  | 3,5          | 10,4         | 2580   | 6     | 9                  | 300             | 30         | 0,928          | 240           |
| BSEN1020000000 | 101,6       | 122,6  | 3,5          | 10,5         | 2655   | 6     | 9                  | 300             | 30         | 0,942          | 240           |
| BSEN1270000000 | 127/5"      | 152,0  | 5,0          | 12,5         | 3965   | 5     | 9                  | 380             | 30         | 1,556          | 292,5         |
| BSEN1520000000 | 152,4/6"    | 180,0  | 5,0          | 13,8         | 5225   | 5     | 8                  | 450             | 20         | 1,440          | 322,5         |
| BSEN2030000000 | 203,2/8"    | 236,0  | 6,0          | 16,4         | 8245   | 4     | 8                  | 600             | 10         | 1,888          | 375           |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity



# Farmacéutico Pharma



**PLUTONE PU PRESS**  
**PHARMAPRESS**  
**PHARMASTEEL**  
**PHARMASTEEL PRESS**  
**SIL LIFE W**  
**IPL CRYSTAL-CLEAR 55**

Las producciones de IPL se llevan a cabo de acuerdo con las buenas prácticas de fabricación (GMP - Good Manufacturing Practice) establecidas por el Reglamento (CE) 2023/2006 sobre buenas prácticas de fabricación de materiales y objetos destinados a entrar en contacto con productos alimenticios. / *IPL products are manufactured under GMP - Good Manufacturing Practice - according to Regulation (CE) N. 2023/2006 regarding manufacturing good practice of materials and goods intended to come into contact with foodstuff.*  
Tutti i tubi della sezione farmaceutica sono completamente esenti ftalati. / *All hoses in the following chapter "Pharma" are completely phthalates free.*



# PLUTONE PU PRESS (Cod. PN)



+90°C  
(picos +125°)  
-40°C



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo transparente de TPU a base éter con espiral de refuerzo de acero inox AISI 302 y refuerzo de poliéster.** Superficie interna y externa completamente lisas para favorecer el paso de las substancias y para facilitar la limpieza y la desinfección antes y después del uso. Transparente para facilitar el control de las substancias transportadas. Altamente neutral a olores y sabores, preservando las propiedades organolépticas de las substancias transportadas. Óptima resistencia a la hidrólisis y a los posibles ataques de microbios. Buena resistencia química a los ácidos y soluciones alcalinas; material versátil resistente a los aceites y grasas en condiciones de uso común. Antiestática ( $R < 10^2$  Ohm/m) conectando la espiral a tierra. Alimentario según la EU Regulation 10/2011 (clase A, B, C, D2), FDA Regulations (Title 21 CFR 177.2600, clase D, E, F). Idóneo para la industria farmacéutica según la normativa internacional USP CLASS VI.

- Industria alimentaria y farmacéutica: aspiración y transporte de polvos altamente abrasivos. Solución ideal para el transporte de polvos cosméticos y farmacéuticos, píldoras, comprimidos medicinales, harinas y gránulos alimentarios, azúcar, sal, frutos secos. Idóneo para el transporte de líquidos alimentarios, farmacéuticos y cosméticos con concentraciones alcohólicas de hasta el 20%.

*Transparent hose made from ether-based hygienic TPU with AISI 302 stainless steel spiral and polyester textile reinforcement. Inside and outside completely smooth to enhance flow properties and allow easy cleaning and sterilization processes. Transparent for an easy detection of the media. It can be conductive ( $R < 10^2$  Ohm/m) by grounding the spiral. Highly neutral in taste and odor, it preserves the organoleptic properties of the medium. Very good chemical resistance to acids and alkaline solutions and good impermeability. Resistant also to oils and fats under common use conditions. Food grade according to EU 10/2011 (classes A, B, C, D2 and E) and FDA regulations (Title 21 CFR 177.2600, classes D, E, F). Compliant with the pharmaceutical standard USP CLASS VI.*

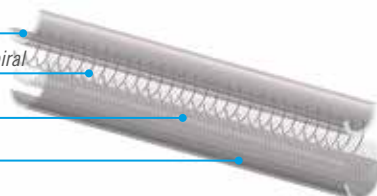
- Suction and delivery of powders and high abrasive granules. Ideal solution to convey pharmaceutical and cosmetic powders, pills, tablets of medicines; for food flours and grains, sugar, salt, dry fruit. Suitable also for food, pharmaceutical and cosmetic liquids with alcohol concentration of max 20%.

TPU a base de éter / Ether based TPU

Espiral de refuerzo en acero inox AISI 302 / Stainless steel spiral

Refuerzo textil de poliéster / Textile reinforcement

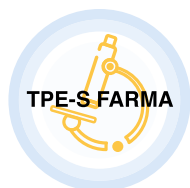
TPU a base de éter / Ether based TPU



## Ficha técnica / Technical data

| Código                                                                                                                                                         | Ø int.  | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code                                                                                                                                                           | Ø Int.  | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                                                                                                                                                                | mm/inch | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| PN010130023500                                                                                                                                                 | 13*     | 23,5   | 365    | 19    | 57    | 10                 | 65              | 60         | 0,050          |
| PN010200032000                                                                                                                                                 | 20*     | 32     | 585    | 17    | 51    | 10                 | 100             | 60         | 0,127          |
| PN010250037500                                                                                                                                                 | 25      | 37,5   | 755    | 12    | 36    | 10                 | 125             | 60         | 0,159          |
| PN010320044000                                                                                                                                                 | 32*     | 44     | 880    | 11    | 33    | 9                  | 160             | 60         | 0,218          |
| PN010380051000                                                                                                                                                 | 38      | 51     | 1105   | 10    | 30    | 9                  | 190             | 30         | 0,202          |
| PN010500065000                                                                                                                                                 | 51      | 65     | 1705   | 8     | 24    | 8                  | 255             | 30         | 0,291          |
| *Disponible bajo demanda. Consulte con ventas para más información y cantidades / *Available on request, contact our sales office for more info and quantities |         |        |        |       |       |                    |                 |            |                |
| Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity         |         |        |        |       |       |                    |                 |            |                |

# PHARMAPRESS (Cod. HA)



**Tubo translucido de goma TPE-S higiénica, con refuerzo textil de poliéster de alta tenacidad.** Superficies interna y externa completamente lisas para favorecer el paso de sustancias y para facilitar la limpieza y la desinfección antes y después del uso. Altamente neutral a olores y a sabores, preservando las propiedades organolépticas de las sustancias transportadas. Resistente a la hidrólisis y a los ataques microbianos. Material curing free: pharmapress no requiere ningún proceso de vulcanización, con lo que se evita el riesgo de extracción de residuos de vulcanización en el producto final. Excelente resistencia al ozono, al envejecimiento y a la intemperie; material versátil resistente a los aceites y grasas en condiciones de uso común. Marcado incorporado en la pared para asegurar la trazabilidad permanente incluso después de un uso repetido. Alimentaria según la normativa Europea EU Regulation 10/2011 (clase A, B, C, D1, D2), FDA regulations (Title 21 CFR 177.2600, clases D, E). Idóneo para el sector farmacéutico según la normativa internacional USP CLASS VI.

• Industria alimentaria y farmacéutica: paso de productos cosméticos, alimentos y sustancias farmacéuticas, a temperaturas de hasta +100° C. Para el transporte de leche y derivados, vinos de calidad, zumos de fruta, licores con concentraciones alcohólicas de hasta el 96%, cremas, jabones, aromas y pigmentos.

*Translucent hose made from TPE-S hygienic rubber reinforced by high tenacity polyester yarn. Inside and outside completely smooth to enhance flow properties and allow easy cleaning and sterilization processes. Highly neutral in taste and odor, it preserves the organoleptic properties of the medium. Curing-free material: Pharmapress does not need any vulcanization process, therefore it prevents the risk of leaching of curing agent residues into the end product (peroxide or platinum volatile rests) and allows to save energy sources and limit CO<sub>2</sub> emissions. Good chemical resistance to acids and alkaline solutions and good impermeability. Excellent resistance to Hydrolysis and proliferation of bacteria. Versatile rubber resistant also to oils and fats under common use conditions. Excellent resistance to ozone, ageing and weather condition. Food grade according to EU Regulation n° 10/2011 (Classes A, B, C, D1, D2), FDA regulations (Title 21 CFR 177.2600 classes D and E). Compliant with the pharmaceutical standard USP CLASS VI.*

• Delivery hose designed to convey food, cosmetic, health care and pharmaceutical products. Suitable for a manifold range of media such as premium wines, fruit juices, vinegar, spirits with alcoholic content up to 96%, creams, soaps, milk and by-products; also resistant to products containing oils and fats in accordance with EU 10/2011 (D2).

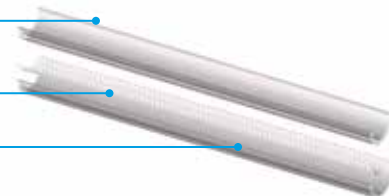
Tubo de goma TPE-S higiénica

*TPE-S hygienic rubber*

Refuerzo textil de poliéster

*Textile reinforcement*

Tubo de goma TPE-S higiénica / TPE-S hygienic rubber



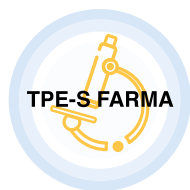
## Ficha técnica / Technical data

| Código         | Ø int.     | Ø Est. | Peso   | P.T.  | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|------------|--------|--------|-------|-----------------|------------|----------------|
| Code           | Ø Int.     | Ø Out. | Weight | W.P.  | Bending         | Coil lgth. | Vol.           |
|                | mm         | mm     | g/m    | [bar] | mm              | m          | m <sup>3</sup> |
| HA010064012600 | 6,4*/1/4"  | 12,6   | 85     | 20    | 40              | 100        | 0,028          |
| HA010079014600 | 7,9*/5/16" | 14,6   | 110    | 22    | 60              | 100        | 0,036          |
| HA010095016300 | 9,5*/3/8"  | 16,3   | 125    | 17    | 70              | 100        | 0,042          |
| HA010110016000 | 11*        | 16     | 105    | 17    | 80              | 100        | 0,042          |
| HA010110018000 | 11*        | 18     | 145    | 14    | 80              | 100        | 0,050          |
| HA010127020100 | 12,7/1/2"  | 20,1   | 175    | 11    | 90              | 100        | 0,061          |
| HA010159024400 | 15,9*/5/8" | 24,4   | 245    | 10    | 110             | 50         | 0,051          |
| HA010190027900 | 19         | 27,9   | 300    | 11    | 130             | 50         | 0,087          |
| HA010254034500 | 25,4/1"    | 34,5   | 390    | 7     | 180             | 50         | 0,110          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# PHARMASTEEL (Cod. HS)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo translucido de goma TPE-S higiénica, con espiral de refuerzo de acero inox AISI 302.** Superficies interna y externa completamente lisas para favorecer el paso de sustancias y para facilitar la limpieza y la desinfección antes y después del uso. Altamente neutral a olores y a sabores, preservando las propiedades organolépticas de las sustancias transportadas. Resistente a la hidrólisis y a los ataques microbianos. Material curing free: pharasteel no requiere ningún proceso de vulcanización, con lo que se evita el riesgo de extracción de residuos de vulcanización en el producto final. Excelente resistencia al ozono, al envejecimiento y a la intemperie; buena resistencia química e impermeabilidad. Material versátil resistente a los aceites y grasas en condiciones de uso común. Alimentaria según la normativa Europea EU Regulation 10/2011 (clase A, B, C, D1, D2), FDA regulations (Title 21 CFR 177.2600, clases D, E). Idóneo para el sector farmacéutico según la normativa internacional USP CLASS VI.

- Industria alimentaria y farmacéutica: Aspiración y transporte de productos cosméticos, alimentos y sustancias farmacéuticas, a temperaturas de hasta +100° C. Para el transporte de leche y derivados, vinos de calidad, zumos de fruta, licores con concentraciones alcohólicas de hasta el 96%, cremas, jabones, aromas y pigmentos.

*Translucent hose made from TPE-S hygienic rubber reinforced by AISI 302 stainless steel spiral. Inside and outside completely smooth to enhance flow properties and allow easy cleaning and sterilization processes. Highly neutral in taste and odor, it preserves the organoleptic properties of the medium. Curing-free material: Pharasteel does not need any vulcanization process, therefore it prevents the risk of leaching of curing agent residues into the end product (peroxide or platinum volatile rests). It allows to save energy sources and limit CO<sub>2</sub> emissions. Good chemical resistance to acids and alkaline solutions and good impermeability. Versatile rubber resistant also to oils and fats under common use conditions. Excellent resistance to ozone, ageing and weather condition. Food grade according to the EU Regulation n° 10/2011 (classes A, B, C, D1, D2), FDA regulations (Title 21 CFR 177.2600, classes D and E). Compliant with the pharmaceutical standards USP CLASS VI. Resistant to hydrolysis and proliferation of bacteria.*

- Versatile suction and delivery hose designed to convey food, cosmetic, health care and pharmaceutical products. Suitable for a manifold range of media such as premium wines, fruit juices, vinegar, spirits with alcoholic content up to 96%, creams, soaps, milk and by-products; also resistant to products containing oils and fats in accordance with EU Regulation n° 10/2011 (class D2).

Espirale de refuerzo en acero inox AISI 302

Stainless steel spiral

Tubo de goma TPE-S higiénica

TPE-S hygienic rubber



## Ficha técnica / Technical data

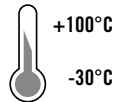
| Código         | Ø int.  | Ø Est. | Peso   | P.T.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|---------|--------|--------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.  | Ø Out. | Weight | W.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm/inch | mm     | g/m    | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| HS010100016000 | 10*     | 16,0   | 140    | 1,5   | 8,5                | 50              | 60         | 0,028          |
| HS010130019000 | 13      | 19,0   | 170    | 1,5   | 8,5                | 60              | 60         | 0,038          |
| HS010160022400 | 16*     | 22,4   | 215    | 1,3   | 8,5                | 70              | 60         | 0,048          |
| HS010190026000 | 19      | 26,0   | 270    | 1,3   | 8,5                | 90              | 60         | 0,075          |
| HS010250033000 | 25      | 33,0   | 405    | 1,0   | 8,5                | 110             | 60         | 0,127          |
| HS010300038000 | 30*     | 38,0   | 475    | 1,0   | 8,5                | 140             | 60         | 0,146          |
| HS010320040400 | 32*     | 40,4   | 525    | 1,0   | 8,5                | 140             | 60         | 0,155          |
| HS010350043400 | 35*     | 43,4   | 560    | 1,0   | 8,5                | 160             | 60         | 0,167          |
| HS010380047000 | 38      | 47,0   | 640    | 1,0   | 8,5                | 170             | 30         | 0,120          |
| HS010510061000 | 51      | 61,0   | 1055   | 1,0   | 8                  | 230             | 30         | 0,264          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity



# PHARMASTEEL PRESS (Cod. HK)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo translúcido de goma TPE-S higiénica, flexible y ligero con espiral de refuerzo de acero inox AISI 302 y inserciones textiles de poliéster de alta tenacidad.** Superficies interna y externa completamente lisas para favorecer el paso de sustancias y para facilitar la limpieza y la desinfección antes y después del uso. Altamente neutral a olores y a sabores, preservando las propiedades organolépticas de las sustancias transportadas. Resistente a la hidrólisis y a los ataques microbianos. Material curing free: pharmasteel press no requiere ningún proceso de vulcanización, con lo que se evita el riesgo de extracción de residuos de vulcanización en el producto final. Excelente resistencia al ozono, al envejecimiento y a la intemperie; buena resistencia química e impermeabilidad. Material versátil resistente a los aceites y grasas en condiciones de uso común. Alimentaria según la normativa Europea EU Regulation 10/2011 (clase A, B, C, D1, D2), FDA regulations (Title 21 CFR 177.2600, clases D, E). Idóneo para el sector farmacéutico según la normativa internacional USP CLASS VI.

• Industria alimentaria y farmacéutica: aspiración y transporte de productos cosméticos, alimentos y sustancias farmacéuticas, a temperaturas de hasta +100° C. Para el transporte de leche y derivados, vinos de calidad, zumos de fruta, licores con concentraciones alcohólicas de hasta el 96%, cremas, jabones, aromas y pigmentos.

*Translucent hose made from TPE-S hygienic rubber reinforced by AISI 302 stainless steel spiral and high tenacity polyester plies. Inside and outside completely smooth to enhance flow properties and allow easy cleaning and sterilization processes. Highly neutral in taste and odor, it preserves the organoleptic properties of the medium. Excellent resistance to ozone, ageing and weather. Resistant to hydrolysis and proliferation of bacteria. Curing-free material: Pharmasteel Press does not need any vulcanization process, therefore it prevents the risk of leaching of residues into the end product (peroxide or platinum volatile rests) and allows to save energy sources and limit CO<sub>2</sub> emissions. Good chemical resistance to acids and alkaline solutions and impermeability. Food grade, according to the EU Regulation 10/2011(classes A, B, C, D1, D2) and to FDA Regulations (Title 21 CFR 177.2600, classes D and E) Compliant with the pharmaceutical standards USP CLASS VI.*

• Ideal solution for suction and delivery of cosmetic, health care, food and pharmaceutical products. For premium wines, milk and by-products, fruit juices, vinegar, spirits with max. up to 96% alcohol content, creams, soaps, aromas, pigments. Resistant to products containing oils and fats in according to Eu 10/2011 (class D2).

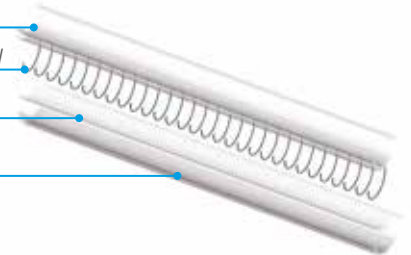
Tubo de goma TPE-S higiénica

*TPE-S hygienic rubber*

Espiral de refuerzo en acero inox AISI 302 / *Stainless steel spiral*

Refuerzo textil de poliéster / *Textile reinforcement*

Tubo de goma TPE-S higiénica / *TPE-S hygienic rubber*



## Ficha técnica / Technical data

| Código         | Ø int.  | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|---------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.  | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm      | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| HK010130023500 | 13*     | 23,5   | 310    | 17    | 51    | 10                 | 65              | 60         | 0,050          |
| HK010200032000 | 20      | 32,0   | 495    | 13    | 39    | 10                 | 100             | 60         | 0,127          |
| HK010250037500 | 25      | 37,5   | 640    | 12    | 36    | 10                 | 125             | 60         | 0,159          |
| HK010320044000 | 32*     | 44,0   | 745    | 11    | 33    | 9                  | 160             | 60         | 0,218          |
| HK010380051000 | 38      | 51,0   | 940    | 10    | 30    | 9                  | 190             | 30         | 0,202          |
| HK010505065000 | 51*     | 65,0   | 1505   | 10    | 30    | 8                  | 255             | 30         | 0,291          |
| HK010630079000 | 63*     | 79,0   | 2030   | 10    | 30    | 8                  | 315             | 30         | 0,385          |
| HK010760091000 | 76*     | 91,0   | 2225   | 9     | 27    | 7                  | 380             | 30         | 0,604          |
| HK011020118000 | 102*/4" | 118,0  | 3025   | 7     | 21    | 7                  | 510             | 20         | 0,801          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# SIL LIFE W

(Cod. WK)



SISTEMA DE CONEXIÓN  
CONNECTION SYSTEM  
SUGGESTED

Racor Clamp BS 4825  
Clamp BS 4825



**Tubo blanco transparente de silicona tratado con platino con refuerzo textil y espiral de acero inox AISI 316L.** Completamente liso internamente y externamente, el tubo reduce el riesgo de desarrollo de bacterias y de penetración de posibles residuos, neutral a olores y sabores, preservando las propiedades organolépticas de las sustancias transportadas. El tubo es sometido a un proceso de post-curing que lo preserva de la extracción de partículas volátiles contaminantes y asegura un nivel de higiene altísimo. Características del tubo: la cubierta inerte ofrece una excelente resistencia al ozono, al envejecimiento y a la intemperie. Marcado con tinta de grado alimentario. Para el transporte de sustancias farmacéuticas según las normativas americanas Pharmacopoeia, USP CLASS VI y Pharmacopoeia Europea 3.1.9.; no citotóxico según la ISO 10993; para el transporte de alimentos según la FDA Regulations (Title 21 CFR 177.2600, clases D, E, F), la BFR alemana; Reg. EU 10/2011 (clases A, B, C, D1). Pruebas realizadas: pruebas de migración en simulador ácido y simulador alcohólico al 20% y 50%.

• Transporte y aspiración de productos críticos en el sector farmacéutico, cosmético, biotecnológico y alimentario. No idóneo para implantes en el cuerpo humano. A temperaturas constantes por encima de los +100° C la prestación en presión decrece cada 10° C. \*\*Para más información contacte con las oficinas IPL.

*White transparent platinum-cured silicone hose with a versatile and robust design, reinforced by polyester plies and stainless steel Aisi 316L spiral. Engineered to offer high pressure and vacuum capability. Tube features: the ultra-smooth extruded tube made of high purity silicone compound reduces the risk of bacteria buildup and permeation of residues and make Si-Life W the ideal solution for hygienic contact with the medium while being transferred. The internal surface does not impart odor or taste and preserves the organoleptic properties of the product. Cover features: the inert cover withstands atmospheric attack, ozone, temperature variations, chemical substances. The hose undergoes certified post-curing treatment which guarantees no release of volatile polluting particles and safeguards the hygiene of the processing environment. Glossy finish with ink marking meeting food regulations. Compliant with American Pharmacopoeia USP CLASS VI and European Pharmacopoeia 3.1.9.; non-cytotoxic according to ISO 10993-5; for food delivery, it meets FDA Regulations (Title 21 CFR 177.2600 aqueous (e) and fatty (f) foods)) as well as the EU Regulation 10/2011(classes A, B, C, D1). Executed Tests Migration tests in acid, alcoholic 20% and alcoholic 50% simulants.*

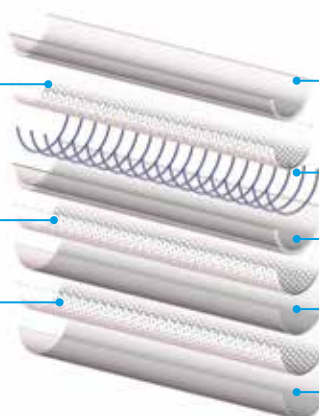
• Ideal for critical product transfer in the pharmaceutical, cosmetic, biotech and food industry where high purity, resilience and good flexibility are demanded. Not for implantation.

\*\*In case of constant temperature exceeding +100C°, the pressure resistance decreases by 1% every additional 1°C. For support consult IPL.

Refuerzo textil de poliéster  
Textile reinforcement

Refuerzo textil de poliéster  
Textile reinforcement

Refuerzo textil de poliéster  
Textile reinforcement



Tubo en silicone tratado au platine / Platinum-cured silicone

Tubo en silicone tratado au platine / Platinum-cured silicone

Tubo en silicone tratado au platine / Platinum-cured silicone

Tubo en silicone tratado au platine / Platinum-cured silicone

Tubo en silicone tratado au platine / Platinum-cured silicone

## Ficha técnica / Technical data

| Código         | Ø int.       | Ø Est. | Peso   | P.T.  | P.R.  | Vacio              | R. de curvatura | Lg. Rollo  | Vol.           |
|----------------|--------------|--------|--------|-------|-------|--------------------|-----------------|------------|----------------|
| Code           | Ø Int.       | Ø Out. | Weight | W.P.  | B.P.  | Vac.               | Bending         | Coil lgth. | Vol.           |
|                | mm           | mm     | g/m    | [bar] | [bar] | m H <sub>2</sub> O | mm              | m          | m <sup>3</sup> |
| WK010125025100 | 12,7*/1/2"   | 25,1   | 530    | 10    | 40    | 10                 | 45              | 4          | 0,003          |
| WK010190031400 | 19,05*/3/4"  | 31,4   | 700    | 10    | 40    | 10                 | 65              | 4          | 0,004          |
| WK010250037800 | 25,4*/1"     | 37,8   | 970    | 10    | 40    | 10                 | 80              | 4          | 0,006          |
| WK010320044200 | 31,8*/1.1/4" | 44,2   | 1050   | 10    | 40    | 10                 | 120             | 4          | 0,008          |
| WK010380050500 | 38,1*/1.1/2" | 50,5   | 1410   | 10    | 40    | 10                 | 150             | 4          | 0,010          |
| WK010510063200 | 50,8*/2"     | 63,2   | 1660   | 10    | 40    | 10                 | 180             | 4          | 0,016          |
| WK010630075900 | 63,5*/2.1/2" | 75,9   | 2000   | 7     | 28    | 10                 | 220             | 4          | 0,023          |
| WK010760088600 | 76,2*/3"     | 88,6   | 2430   | 4     | 16    | 10                 | 250             | 4          | 0,032          |
| WK011020114000 | 101,6*/4"    | 114,0  | 3000   | 3     | 12    | 10                 | 360             | 4          | 0,052          |

\*Disponible bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

# IPL CRYSTAL CLEAR-55

(Cod. CL N7/CL N9)



+80°C

-20°C



**Tubo translúcido, de TPE-S farmacéutico para bombas peristálticas, desarrollado para aplicaciones en ambiente farmacéutico, cosmético y alimentario.** No altera las propiedades organolépticas de las sustancias transportadas. Material curing-free; resistente al alcohol en concentraciones máximas del 50%. Es posible soldarlo y sellarlo en calor incluso con otros materiales sin tener que recurrir a elementos de conexión, asegurando una extrema estabilidad en el flujo. Su impermeabilidad es superior a los elastómeros de silicona. Instalado en bombas peristálticas, tiene una duración superior a otros tubos presentes en el mercado. ISO 10993-5 (No citotóxico); ISO10993-4 (No hemolítico, método directo e indirecto); USP <88> CLASS VI; USP <661> (Physicochemical Tests-plastics); EU Regulation n° 10/2011 (clase A, B, C, D1); FDA regulations (Title 21 CFR 177.2600, clase D, E).

• En la industria farmacéutica, cosmética y alimentaria, usado en bombas peristálticas (fenómeno de "spallation" mínimo en las extremidades de la bomba), sistema de dosificación de líquidos, envasado y dispenser, procesos de síntesis, procesos de purificación y separación, aplicaciones en laboratorio, dosificación de jabones, cremas y detergentes. Dosificación de bebidas, zumo de fruta, salsas, líquidos viscosos (jarabes), aguas y aguas purificadas. Para los productos lácteos con bajo contenido en grasa.

*translucent hygienic TPE-S pharma-grade tubing for peristaltic pumps specifically engineered for applications within food, pharmaceutical, biotech and cosmetic industries. Highly neutral in taste and odor, it preserves the organoleptic properties of the medium. Curing-free material; versatile rubber resistant also to alcohols with max. 50% concentration. Much more impermeable than silicone elastomers. Superior working life on peristaltic pumps when compared with similar tubings of the competition (average working life >190 hours when tested on a 3 lobes pump with 600 turning/minute) and minimal spallation on pump heads. Heat sealable and quick welding of multiple lengths, which can be assembled without the need of connectors. This ensures the stability of the flow.*

• Ideal solution for peristaltic pumps working in the pharmaceutical, cosmetic and food sectors. Typical applications: dosing of pharmaceutical fluids, sterile filling and dispensing systems, cell culture media, synthetic processes, purification and separation processes, laboratory applications, dosing of soaps, cremes, detergents. Dosing of juices, alcohols, sauces, viscous fluids (syrops), waters and purified waters. For milk and low fat products. For dispensers of beverages

ISO 10993-5 (Non cytotoxic); ISO10993-4 (Non haemolytic, direct and indirect methods); USP <88> CLASS VI; USP <661> Physicochemical Tests-plastics; EU Regulation n° 10/2011 (classes A, B, C, D1); FDA regulations (Title 21 CFR 177.2600 classes D, E).

## Ficha técnica / Technical data

| Código         | Ø int.     | Spessore parete | Ø Est.       | Peso | P.T.  | Vacio              | R. de curvatura | Lg. Rollo  | Packaging                     | Vol.           |
|----------------|------------|-----------------|--------------|------|-------|--------------------|-----------------|------------|-------------------------------|----------------|
| Code           | Ø Int.     | Wall thick      | Ø Out.       |      | W.P.  | Vac.               | Bending         | Coil lgth. | Packaging                     | Vol.           |
|                | mm/inch    | mm              | mm/inch      | g/m  | [bar] | m H <sub>2</sub> O | mm              | m          |                               | m <sup>3</sup> |
| CLN90032006400 | 3,2 / 1/8  | 1,6             | 6,4 / 1/4    | 20   | 0,9   | 640                | 13              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90032008000 | 3,2 / 1/8  | 2,4             | 8,0 / 5/16   | 40   | 1,1   | 680                | 13              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90048008000 | 4,8 / 3/16 | 1,6             | 8,0 / 5/16   | 30   | 0,9   | 540                | 19              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90048009500 | 4,8 / 3/16 | 2,4             | 9,6 / 3/8    | 50   | 0,9   | 540                | 19              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90063009500 | 6,35 / 1/4 | 1,6             | 9,6 / 3/8    | 35   | 0,7   | 410                | 32              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90063011100 | 6,35 / 1/4 | 2,4             | 11,2 / 7/16  | 60   | 1,1   | 640                | 32              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90063012700 | 6,35 / 1/4 | 3,2             | 12,8 / 1/2   | 85   | 1,2   | 680                | 38              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90079011100 | 7,9 / 5/16 | 1,6             | 11,1 / 7/16  | 40   | 0,6   | 260                | 55              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90079012700 | 7,9 / 5/16 | 2,4             | 12,7 / 1/2   | 70   | 0,9   | 450                | 63              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90095012700 | 9,5 / 3/8  | 1,6             | 12,7 / 1/2   | 50   | 0,5   | 225                | 67              | 15,2       | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN90095014300 | 9,5 / 3/8  | 2,4             | 14,3 / 9/16  | 80   | 1,0   | 600                | 52              | 15,2       | min. 15 boxes<br>min 15 boxes | 0,030          |
| CLN70095012700 | 9,5 / 3/8  | 1,6             | 12,7 / 1/2   | 50   | 0,5   | 225                | 67              | 7,5        | min. 10 boxes<br>min 10 boxes | 0,006          |
| CLN70095014300 | 9,5 / 3/8  | 2,4             | 14,3 / 9/16  | 80   | 1,0   | 600                | 52              | 7,5        | min. 15 boxes<br>min 15 boxes | 0,030          |
| CLN70095015900 | 9,5 / 3/8  | 3,2             | 15,9 / 5/8   | 115  | 1,0   | 600                | 52              | 7,5        | min. 15 boxes<br>min 15 boxes | 0,030          |
| CLN70127017500 | 12,7 / 1/2 | 2,4             | 17,5 / 11/16 | 100  | 0,6   | 430                | 76              | 7,5        | min. 15 boxes<br>min 15 boxes | 0,030          |
| CLN70127019100 | 12,7 / 1/2 | 3,2             | 19,1 / 3/4   | 140  | 0,9   | 410                | 76              | 7,5        | min. 15 boxes<br>min 15 boxes | 0,030          |

\*Disponibile bajo demanda. Consulte con ventas para más información y cantidades / \*Available on request, contact our sales office for more info and quantities

Los datos técnicos aquí reportados fueron medidos a 23°C con 50% de humedad / The technical data here reported were measured at 23°C with 50% humidity

Tubo de goma TPE-S higiénica  
TPE-S hygienic rubber









# **Sistemas de conexión** **Connecting systems**

**ABRAZADERAS DOBLE PUENTE W2 / DOUBLE BRIDGE W2**

**CLAMP BS 4825**

**MORDAZAS REUTILIZABLES / REUSABLE FERRULES**

# ABRAZADERAS DOBLE PUENTE W2 (Cod. F2 W2)

## DOUBLE BRIDGE W2



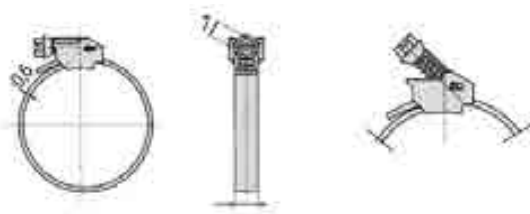
**Banda de acero inox 430**, tornillos de acero galvanizado con tratamiento de galvanización blanca trivalente, exento de cromo VI (según Dir. EU RoHS). Banda con cajón plegable que garantiza una extrema versabilidad y rapidez en el utilizzo, especialmente en tubos de gran diámetro. La banda es completamente dentada con bordes redondeados para proteger los tubos de posibles daños.

**APLICACIONES:** Instalaciones de acondicionamiento, ventilación y aspiración.

*430 SS band and housing, RoHS compliant zinc plated screw.*

*Tilting housing worm-drive clamps guarantee versatile and quick application especially on large diameter hoses. The toothed band and bevelled edges protect the hose from damages.*

*Applications: Air conditioning, ventilation systems and suction plants*



Disponible para los siguientes rangos, en diámetros no inferiores a 14 mm:  
*Available for the following product ranges, for the sizes with pitch rating not inferior to 4 mm:*

VZ 01 - ZR 01 - VT 01 - W4 01 - VR FR - VM FR - VB 01 - VK 01 - EB 01 - VO 01 - VC 01 - VI 01 - TR 01 - H1 01 - N9 ET - N9 01 - N7 01 - N5 01

Es responsabilidad del usuario verificar y confirmar la idoneidad del sistema conectado y su aplicación. IPL declina toda responsabilidad en caso de uso indebido de sus sistemas y cuando el montaje sea realizado por terceros.

*It is responsibility of the user verify and confirm the suitability of the assembled system and relative application. IPL declines any responsibility for a misapplication of its assembled systems and where its hoses have been fitted by third parties.*

| Código            | Rango diámetro | Anchura banda |
|-------------------|----------------|---------------|
| Code              | Range Ø        | Band Width    |
|                   | mm             | mm            |
| F2 W2 076.0 090.0 | 75             | 9             |
|                   | 76             | 9             |
|                   | 80             | 9             |
|                   | 82             | 9             |
|                   | 89             | 9             |
|                   | 90             | 9             |
| F2 W2 100.0 127.0 | 100            | 9             |
|                   | 102            | 9             |
|                   | 104            | 9             |
|                   | 110            | 9             |
|                   | 115            | 9             |
|                   | 118            | 9             |
|                   | 120            | 9             |
|                   | 122            | 9             |
|                   | 125            | 9             |
|                   | 127            | 9             |
| F2 W2 130.0 190.0 | 130            | 9             |
|                   | 140            | 9             |
|                   | 150            | 9             |
|                   | 152            | 9             |
|                   | 160            | 9             |
|                   | 165            | 9             |
|                   | 170            | 9             |
|                   | 175            | 9             |
|                   | 180            | 9             |
|                   | 182            | 9             |
| F2 W2 200.0 230.0 | 200            | 9             |
|                   | 203            | 9             |
|                   | 205            | 9             |
|                   | 206            | 9             |
|                   | 210            | 9             |
|                   | 220            | 9             |
|                   | 225            | 9             |
|                   | 228            | 9             |
| F2 W2 250.0 330.0 | 250            | 9             |
|                   | 254            | 9             |
|                   | 257            | 9             |
|                   | 265            | 9             |
|                   | 274            | 9             |
|                   | 279            | 9             |
|                   | 300            | 9             |
|                   | 305            | 9             |
|                   | 315            | 9             |
|                   | 320            | 9             |
| F2 W2 350.0 410.0 | 325            | 9             |
|                   | 350            | 9             |
|                   | 355            | 9             |
|                   | 356            | 9             |
|                   | 400            | 9             |
|                   | 406            | 9             |

Los valores que figuran en las hojas de datos se han determinado según normas estandarizadas y a 23 °C, 50% de humedad. The technical data here reported were measured at 23°C with 50% humidity



# CLAMP BS 4825



**Sistema de conexión** constituido por una unión clamp BS 4825 Material: acero inox 316 L. Disponible bajo pedido unión DIN 11851 y otros modelos. **APLICACIONES:** Industria alimentaria y farmacéutica, allí donde es necesario un nivel alto de estándar higiénico.

*Connecting systems: clamps BS 4825*

*Material: stainless steel 316 L*

*Applications: food and pharmaceutical industries, where high hygienic standards are required.*



Ficha técnica / Technical data

| CLAMP ref. | Ø int. de manguera<br>Hose ins. Ø | Ø Clamp<br>Ø TC | Ø Hose barb ID |
|------------|-----------------------------------|-----------------|----------------|
| DN         |                                   | A               |                |
| inch       | [mm]                              | mm              | mm             |
| 1/2"       | 13                                | 25,1            | 10,0           |
| 3/4"       | 20                                | 25,1            | 15,6           |
| 1"         | 25                                | 50,4            | 19,5           |
| 1" 1/2     | 38                                | 50,4            | 32,0           |
| 2"         | 50,8                              | 64,0            | 44,0           |

Es responsabilidad del usuario verificar y confirmar la idoneidad del sistema conectado y su aplicación.

IPL declina toda responsabilidad en caso de uso indebido de sus sistemas y cuando el montaje sea realizado por terceros.

*It is responsibility of the user verify and confirm the suitability of the assembled system and relative application.*

*IPL declines any responsibility for a misapplication of its assembled systems and where its hoses have been fitted by third parties.*

# MORDAZAS REUTILIZABLES REUSABLE FERRULES

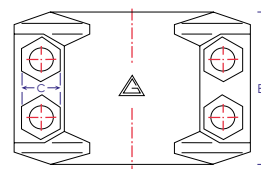
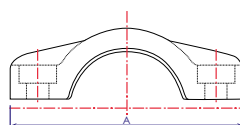
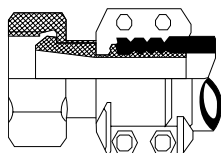


**Sistema de conexión:** abrazadera con 4 tornillos, reutilizables según EN 14420 (DIN 2817), de acero inoxidable AISI- 316L o de aluminio.

**APLICACIONES:** industria alimentaria y farmacéutica, allí donde se requiere un alto estándar higiénico.

**Connection system:** ferrules with screws, reusable according to EN 14420 (DIN 2817), made of stainless steel 316 L or aluminium

**Applications:** food and pharmaceutical industries, where high hygienic standards are required



Ficha técnica / Technical data

| Mangueras<br>Hoses                                                             | D min-max | Dimensión<br>Dimension |    | Bolt<br>Bolt | Longitud/Length | C | Material<br>Material                                               |
|--------------------------------------------------------------------------------|-----------|------------------------|----|--------------|-----------------|---|--------------------------------------------------------------------|
|                                                                                |           | A                      | B  |              |                 |   |                                                                    |
| 13x23,5                                                                        | 22-24     | 56                     | 50 | M6X20        | 10,7            |   | Aluminio/acero inoxidable 316 L<br>Aluminium/stainless steel 316 L |
| 20x32                                                                          | 30x33     | 65                     | 50 | M6X20        | 10,7            |   | Aluminio/acero inoxidable 316 L<br>Aluminium/stainless steel 316 L |
| 25x37,5                                                                        | 36-39     | 73                     | 50 | M6X20        | 10,7            |   | Aluminio/acero inoxidable 316 L<br>Aluminium/stainless steel 316 L |
| 32x44                                                                          | 43-46     | 75                     | 50 | M6X20        | 10,7            |   | Aluminio/acero inoxidable 316 L<br>Aluminium/stainless steel 316 L |
| 38x51                                                                          | 50-56     | 83                     | 50 | M6X20        | 10,7            |   | Aluminio/acero inoxidable 316 L<br>Aluminium/stainless steel 316 L |
| 50x65                                                                          | 64-67     | 102                    | 56 | M8X25        | 10,8            |   | Aluminio/acero inoxidable 316 L<br>Aluminium/stainless steel 316 L |
| Disponible bajo pedido otros modelos. / Further models available upon request. |           |                        |    |              |                 |   |                                                                    |

Es responsabilidad del usuario verificar y confirmar la idoneidad del sistema conectado y su aplicación.

IPL declina toda responsabilidad en caso de uso indebido de sus sistemas y cuando el montaje sea realizado por terceros.

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# **Información técnica**

## **Technical Appendix**

# Propiedades de los materiales

## Properties of materials

### POLIURETANO A BASE DE ÉSTER Y A BASE DE ÉTER

El poliuretano es uno de los polímeros con mayor grado de resistencia a la abrasión. En las mangueras esto es una consecuencia del paso de material de diferente naturaleza, forma y tamaño a alta velocidad. El poliuretano a base de éster ofrece el mayor rendimiento en estos términos, mejor que el poliuretano a base de éter, que por otra parte ofrece una excelente resistencia a los microbios y al fenómeno de la hidrólisis, que típicamente suele producirse como consecuencia del transporte de material húmedo o mojado. El poliuretano atacado por microorganismos pierde su elasticidad y resistencia, desmoronándose en poco tiempo. La preferencia es por el poliuretano a base de éster cuando se requiere el máximo rendimiento contra la abrasión y si se transportan polvos y gránulos secos y poliuretano a base de éter cuando el peligro de formación de microbios es altamente probable, como en el caso de los gránulos y polvos húmedos, en sector de la limpieza de calles y los procesos que involucran tierra, grava, arena.

### POLIURETANO CONDUCTOR

El Poliuretano puede ser enriquecido con aditivos, que mejoran sus propiedades. En este caso a la materia prima se le añade "negro de humo", que le da al poliuretano una resistencia eléctrica permanente de  $R < 10^4$  Ohm/metro. El tubo es totalmente conductor de la electricidad, de acuerdo con los requisitos de la norma internacional ATEX, que regula los entornos y los equipos con riesgo de explosión. Por lo tanto, se prefiere el tipo de manguera electro conductora cuando se transportan sustancias que son particularmente susceptibles de crear cargas eléctricas al ser transportadas a gran velocidad y así evitar el peligro de explosión.

### GOMA TERMOPLÁSTICA (TPE-S)

Los elastómeros termoplásticos libres, en TPE o gomas termoplásticas, son una clase de copolímeros, es decir, una mezcla polimérica (generalmente un plástico y un caucho) con propiedades tanto termoplásticas como elastoméricas. Los elastómeros termoplásticos son reciclables ya que pueden ser moldeados, extruidos y reutilizados como plástico. Las gomas termoplásticas (TPE-S) garantizan la máxima pureza. Los elastómeros termoplásticos utilizados no requieren ningún proceso de vulcanización, con lo que se evita el riesgo de extracción de partículas volátiles y residuos de vulcanización en el producto final (fenómeno llamado "lixiviación"); se diferencian de otros materiales, para los cuales la extracción de partículas volátiles a altas temperaturas es inevitable. Esto resulta en un riesgo mínimo de contaminación, hinchazón, formación de depósitos pegajosos invisibles en las superficies. Entre las ventajas de usar TPE incluyen:

- Resistencia al envejecimiento atmosférico (UV, ozono) -Resistencia a la temperatura;
- Resistencia a la abrasión y desgarrar -Memoria elástica y excelente procesabilidad -transparencia.

La neutralidad del olor y el sabor del TPE permite un procesamiento altamente higiénico de productos farmacéuticos y alimenticios como leche, yogur, zumos de fruta, bebidas vinos, licores y sustancias con una concentración de alcohol de hasta el 96%, salvaguardando la salud del consumidor, que puede contar con un sistema seguro y no contaminado. Por último, los elastómeros termoplásticos sin curar utilizados por IPL ahorran costes y energía durante el proceso de producción, reduciendo las emisiones de CO<sub>2</sub> a la atmósfera.

### ESTER AND ETHER BASED POLYURETHANE

*Polyurethane is one of the most abrasion resistant polymers. As regards flexible hoses, abrasion is the result of the passage at high speed of media of different kind, shape and material. Ester-based Polyurethane offers the top performance in terms of abrasion resistance, better than that of ether-based Polyurethane. On the other hand ether-based Polyurethane offers an excellent resistance to microbes attacks and hydrolysis phenomenon, which often occur as a consequence of delivering humid or wet materials. When attacked by microbes, Polyurethane loses its flexibility and resistance properties, crumbling in a short time. On one hand ester-based Polyurethane is usually preferred whereas the highest abrasion resistance is required and in case of delivery of powders or dry granules.*

*On the other hand ether-based Polyurethane is recommended when microbes are likely to form, as humid granules and powders are concerned, included street cleaning or applications which involve the presence of soil, gravel and sand.*

### ELECTRICAL CONDUCTIVE POLYURETHANE

*Polyurethane can be enriched with additives which increase its properties, as proved by electrical conductive Polyurethane. In this case some "carbon black" is added to the raw material, giving the Polyurethane a permanent electrical resistance of  $R < 10^4$  Ohm/meter. The hose thus becomes completely electrical conductive, in compliance with the requirements set out by the international Standard ATEX, on equipment and protective systems intended for use in potentially explosive atmospheres. This type of product is usually preferred when substances likely to generate electrical charges at high speed are transferred.*

### THERMOPLASTIC RUBBER (TPE)

*Thermoplastic elastomers (TPE), sometimes referred to as thermoplastic rubbers, are a class of copolymers or a physical mix of polymers (usually a plastic and a rubber) which consist of materials with both thermoplastic and elastomeric properties. TPE materials have the potential to be recyclable since they can be molded, extruded and reused like plastics. TPE ensure the utmost purity: the TPE elastomers used by IPL do not require any "curing agents" as well as they do not need any vulcanization process or post-curing; the absence of curing chemicals prevents risks of release of volatile chemical parts into the medium delivered (the phenomenon called "leaching" of residues from raw materials).*

*This means a minimum risk of contamination, swelling or formation of sticky invisible residues on the surfaces. Among the benefits of TPE use are: -Resistance to ageing and weather condition (UV, ozone,...) -Resistance to temperature -Resistance to abrasion and cracking -Good compression set and excellent processability -transparency, highly neutral in taste and odor TPE options allow the pharmaceutical and food industries to process products as milk, yogurt, juices, beverages, wines, spirits with an alcoholic concentration up to 96% in a clean hygienic way meeting the most demanding standards, safeguarding the health of consumers at highest level. At least but not less important, curing free TPE used by IPL allow to save energy sources and limit CO<sub>2</sub> emissions.*



### TUBOS IPL SIN FTALATOS

¿Qué son los ftalatos? Los ftalatos son una familia de compuestos químicos, en este caso los ésteres de ácido ftálico, utilizados en la industria del plástico como agentes plastificantes, es decir, como sustancias añadidas al polímero para mejorar su flexibilidad y capacidad de trabajo. De hecho, en el PVC-P se utilizan plastificantes para lograr un mayor grado de flexibilidad que en el PVC-U.

La adición de ftalato al PVC permite que las moléculas del polímero se deslicen una sobre otra suave y moldeable incluso a bajas temperaturas. Los ftalatos se utilizan principalmente en la PVC-P y se dividen en: Ftalatos de bajo peso molecular (C8) ex DINP, DIDP, etc., que no presentan un riesgo y, por lo tanto, no están incluidos en la lista de candidatos o sustancias sujetas a autorización en virtud del estándar REACH, su uso está restringido a la industria de los juguetes y el cuidado de los niños, que pueden entrar en contacto directo con los niños.

Además de los ftalatos, hay otros plastificantes que pueden utilizarse en el PVC. Es posible sustituir los plastificantes ftálicos por otros plastificantes de distinta naturaleza como, por ejemplo: DOTP, ésteres de ciclohexano (DINCH), poliméricos, alifáticos (DOA). La elección de los plastificantes debe hacerse teniendo en cuenta el rendimiento mecánico, la tendencia a la migración y el comportamiento del agrietamiento por tensión hacia el refuerzo helicoidal en las mangueras en espiral. IPL HA ELEGIDO PARA USAR EXCLUSIVAMENTE COMPUESTOS DE VINILO LIBRES DE FTALATOS.

### TENDENCIA DEL RENDIMIENTO HIDROSTÁTICO DE LOS TUBOS DE MATERIAL TERMOPLÁSTICO

El siguiente gráfico muestra el rendimiento hidrostático de las mangueras de material termoplástico. Vale la pena recordar que en el campo de las mangueras de material termoplástico los valores relativos a la presión de trabajo y la presión de aspiración o vacío, están relacionados con la temperatura de uso a la que se somete la manguera. Los datos que figuran en el gráfico son teóricos y no constituyen en ningún caso especificaciones del producto o de la aplicación. El usuario está obligado a evaluar por anticipado la idoneidad de la manguera y relativa aplicación y, por lo tanto, asume todos los riesgos y responsabilidades que surge de su elección. IPL declina toda responsabilidad en caso de uso indebido de sus productos.

### IPL PHTHALATES FREE HOSES

*What are phthalates. They are a category of chemical compounds, especially esters of phthalic acid, mainly used in the plastic industry as plasticizers, additives to the polymer that increase the performance of the material in terms of flexibility and processability. Therefore in PVC-P the plasticizers are used to reach a higher degree of flexibility than that of PVC-U.*

*When added to PVC, phthalates allow the long polyvinyl molecules to slide against one another, softening and making the material mouldable even at low temperatures. The Phthalates are widely used in PVC-P and are divided as: low-molecular-weight Phthalates (C8) former DINP, DIDP, etc., which are not considered hazardous and are not included in the list of substances submitted to authorization by Reg. Reach: however they have a restriction as toys and child care articles are concerned, which may come into direct contact with the baby or child. In addition to Phthalates are others plasticizers which can be used in PVC.*

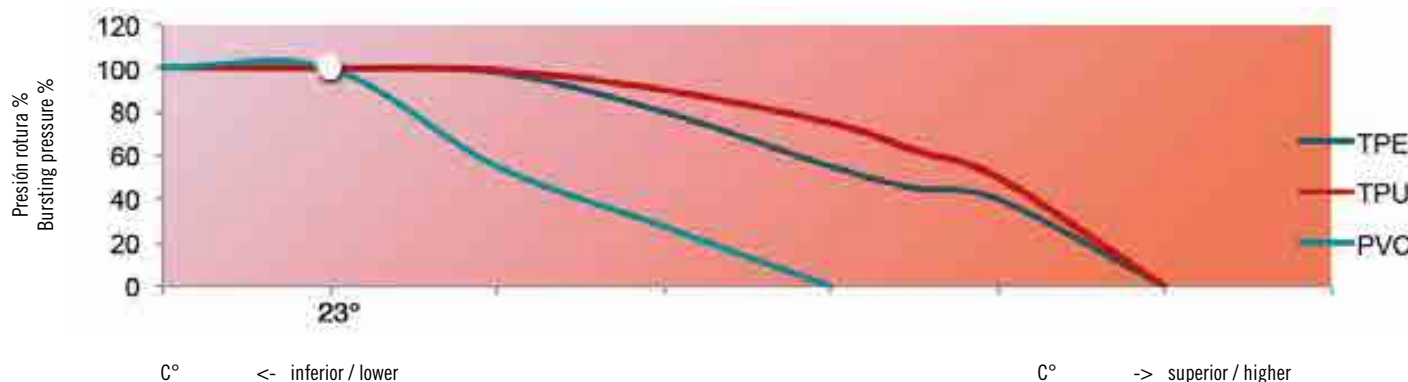
*It's possible to replace the phthalatic plasticizers with others different plasticizers, such as: DOTP, Cyclohexane esters (DINCH), Polymeric, Aliphatic esters (DOA) The choice of plasticizers must be carried taking into account the mechanical performances, the risk of leaching (volatile rests), stress cracking behaviour in relation to the spiral reinforcement of the hose. IPL FOOD AND PHARMACEUTICAL PRODUCTS RANGE ARE CONSCIOUSLY MANUFACTURED USING EXCLUSIVELY PHTHALATES FREE COMPOUNDS.*

### TREND OF WORKING PRESSURE RELATED TO THERMOPLASTIC HOSES

*The graph below demonstrates the overall trend of hydrostatic performance of the thermoplastic Hoses. As a general rule, working pressure and vacuum ratings can be affected by the temperature to which the hose is exposed in service.*

*The data contained in the chart do not constitute product or application specification and exclusively provide theoretical information for the expected performance*

*Before using any hose the user is responsible for determining the suitability of the hose for the intended application and he assumes all the risks and responsibility deriving from his choices*



# Certificados Standards



## REGLAMENTO (UE) N.º 10/2011

Los materiales y artículos destinados a entrar en contacto con alimentos están regulados por medidas tanto nacionales como comunitarias. En cuanto a Reglamento comunitario, la normativa (CE) n. 1935/2004 establece los requisitos generales a los que todos los materiales y objetos en cuestión, mientras que las medidas específicas contienen disposiciones detalladas para cada uno de los materiales (plásticos, cerámica, etc.). En particular, el reglamento estipula que todos los materiales y objetos deben ser producidos de acuerdo con unas buenas prácticas de fabricación (Reg. 2023/06/EC - GMP) y, en condiciones normales o previsibles de uso, no deben transferir componentes a los alimentos en una cantidad tal que constituyen un peligro para la salud humana, provocar un cambio inaceptable en la composición de los alimentos, provocar un deterioro de las características organolépticas. El Reglamento (UE) 10/2011 (PIM) es una medida específica de conformidad con el artículo 5 del Reglamento Marco (CE) 1935/2004 y establece normas específicas para la fabricación y comercialización de materiales y artículos de plástico. El Reglamento 10/2011 establece: - una lista de sustancias autorizadas para la fabricación de materiales y artículos, y posibles restricciones; - límites de migración globales y/o específicos, simulantes y condiciones para las pruebas de conformidad. - los requisitos para la declaración de conformidad. Todas las mangueras alimentarias y farmacéuticas de la gama de IPL cumplen con la normativa europea, respetando y salvaguardando la salud del consumidor.

## FDA

La Administración de Alimentos y Medicamentos (Agencia de Alimentos y Medicamentos, abreviada como FDA) es la agencia del gobierno de los EE. UU. que se ocupa de la regulación de los productos alimenticios y farmacéuticos. La FDA tienen como objetivo proteger la salud de los ciudadanos a través de reglamentos que controlan la comercialización de los productos bajo su jurisdicción, incluidos los medicamentos, alimentos y jurisdicción, incluyendo drogas, alimentos, cosméticos, productos veterinarios, dispositivos médicos, productos biológicos y productos del tabaco. Dentro del Código de Regulaciones Federales, la regulación de la FDA está publicada en bajo el Título 21 (CFR 21) e incluye varias partes que con las específicas de cada categoría de material. Entre las herramientas de control incluyen tanto las evaluaciones previas a la comercialización como la vigilancia posterior a la misma.

## USP CLASS VI

La Farmacopea de los Estados Unidos (USP) establece normas para garantizar la calidad de las drogas y otras tecnologías de atención de la salud. Entre estos las normas incluyen las relacionadas con las pruebas de reactividad biológica para "elastómeros, plásticos y otros materiales poliméricos con los que el paciente puede, directa o indirectamente, entrar en contacto", definiendo una subdivisión en seis clases.

De estos, la clase VI tiene el protocolo de pruebas más estricto:

- Pruebas de toxicidad sistémica;
- Prueba de reactividad intercutánea;
- pruebas de implantes.

## GMP

Las buenas prácticas de fabricación (GMP) se definen como el conjunto de aspectos de la producción y los ensayos que contribuyen para asegurar la

## REG. (EU) N. 10/2011

*Products and materials intended to come into contact with foodstuff are regulated both by national and EU standards. As regards EU Regulation (CE) n. 1935/2004, it sets the general requirements for the materials and products here involved, whereas specific proceedings include detailed provisions for each single material (plastic materials, ceramics, etc). In particular the regulation sets that all the materials and products should be manufactured under GMP - Good Manufacturing Practice - according to Regulation (CE) N. 2023/2006 regarding manufacturing good practice of materials and goods intended to come into contact with foodstuff and in normal condition of use, they must not transfer to it elements in such a quantity that:*

- *may represent a danger for human health*
  - *may cause an unacceptable variation of the foodstuff composition*
  - *may lead to a deterioration of the organoleptic properties*
- Eu Regulation 10/2011 (PIM = plastic implementation measure) represents a specific measure under Art. 5 of the General Directive (CE) 1935/2004 and it sets specific standards for manufacturing and sale of plastic materials and products.*

*Eu Reg. 10/2011 establishes:*

- *A list of approved substances used to manufacture materials and products and their restrictions;*
- *Specific conditions and limits of migration and simulants to be used;*
- *Requirements of Declaration of Compliance.*

*All IPL food and pharmaceutical hoses are compliant to this European Regulation, in order to safeguard the health of consumers.*

## FDA REGULATION

*The US FDA (Food and Drug Administration) is responsible for protecting and promoting public health through the regulation and supervision of food safety. Issued in 1997 by Food & Drug Administration, the Regulation aims to safeguard the health of consumers through standards that regulate the put on the market of pharmaceutical and bio, food, cosmetic, veterinary, tobacco products and medical devices. In the Code of Federal Regulations, FDA Regulation is issued as Title 21(CFR 21) and includes different and specific information according to the food category.*

## USP CLASS VI

*The United States Pharmacopeia (USP) is a non-government organization that endorses public health by establishing up to the minute standards to safeguard the quality of medicines and other health care technologies. Among these standards are some regarding Tests designed to evaluate the biological reactivity of various types of plastics, elastomers and other polymer material which the patient may come into contact with. The USP defines six plastics classes, from I to VI, the last remains the class with the strictest requirements*

- *Systemic toxicity*
- *Intracutaneous reactivity*
- *Implantation test.*

*GMP A good manufacturing practice (GMP) is a production and testing practice that helps to ensure a quality product. Many countries have legislated that pharmaceutical and medical device companies must follow GMP procedures, and have created their own GMP guidelines that*

calidad de un producto. Muchos países han establecido que las empresas de dispositivos médicos y/o farmacéuticos deben cumplir con los procedimientos de las GMP y han desarrollado las directrices de acuerdo con su sistema legislativo.

En general, los principios fundamentales de todas las directrices siguen siendo más o menos similares entre sí; lo que tienen en común es el objetivo final de salvaguardar la salud del paciente, así como para producir dispositivos médicos, medicinas o ingredientes farmacéuticos de buena calidad. Todas las directrices se basan en ciertos principios básicos: -Los procesos de producción están claramente definidos y controlados. Todos los procesos críticos se validan para asegurar la coherencia y la conformidad con las especificaciones.

-Los procesos de producción se supervisan y se evalúa cualquier cambio en el proceso. Los ajustes que tienen un impacto en la calidad del producto son validados, cuando es necesario.

-Las instrucciones y procedimientos están escritos en un lenguaje claro e inequívoco.

-Los operadores están capacitados para realizar y documentar los procedimientos.

-Todas las etapas de la producción se registran, ya sea manualmente o mediante

instrumentos, a fin de demostrar que se siguen todos los procedimientos requeridos por instrucciones bien definidas y que la calidad del producto cumple las expectativas. Cualquier desviación es examinada y documentada.

-Un registro de la producción (incluida la distribución), que permite rastrear la historia completa de un lote se mantiene en una forma accesible y comprensible.

-La distribución del producto minimiza cualquier riesgo para su calidad. -Se dispone de un sistema de rastreo, desde la venta o el suministro, de cualquier lote de productos.

-Se investigan las quejas sobre los productos vendidos, se investigan las causas y se adoptan las medidas adecuadas con respecto a el producto defectuoso y para asegurar que la no conformidad no vuelva a ocurrir en el futuro.

Las directrices de GMP no son instrucciones prescriptivas sobre cómo hacer un producto. Representan un conjunto de principios generales que deben observarse durante la producción.

Siempre que una empresa desarrolla su programa de gestión de calidad y de procesos de producción, puede utilizar una serie de herramientas a través de las cuales puede cumplir con los requisitos de GMP.

Es responsabilidad de la propia empresa determinar el proceso de calidad más eficaz y eficiente. Desde noviembre de 2010 IPL ha decidido adaptar sus procesos de producción a las directrices de las GMP como señal de respeto a sus clientes. En este sentido, todo el proceso de producción ha sido objeto de una reestructuración para cumplir con estos requisitos.

**ATEX - DIRECTIVAS 2014/34/UE y 99/92/CE** en materia de productos destinados a ser utilizados en atmósferas potencialmente explosivas. La Directiva entró en vigor el 30 de marzo de 2014 y deroga la Directiva 94/9/CE con efecto a partir del 20 de abril de 2016.

Además de 2014/34/UE, también se aplica la Directiva 99/92/CE, que se refiere a los requisitos de seguridad en el lugar de trabajo, es por lo tanto pertinente para la parte operativa de las plantas y el equipo. La legislación clasifica equipo y áreas de aplicación en:

Productos del grupo 1 (categoría M1 y categoría M2) y productos del grupo 2 (categorías 1,2,3). También divide las zonas en:

zona 0: área en la que una atmósfera explosiva consistente en una mezcla de aire y sustancias inflamables en forma de gas, vapor o nube de polvo combustible está presente de forma continua o durante largos períodos. Zona 1: área en la que es probable que se produzca una atmósfera explosiva en forma de gas, vapor o nube de polvo en el funcionamiento normal.

*correspond with their legislation. Basic concepts of all of these guidelines remain more or less similar to the ultimate goals of safeguarding the health of the patient as well as producing good quality medical devices, medicine or active pharmaceutical products. All guidelines follow a few basic principles:*

*- Manufacturing processes are clearly defined and controlled. All critical processes are validated to ensure consistency and compliance with specifications.*

*- Manufacturing processes are controlled, and any changes to the process are evaluated. Changes that have an impact on the quality of the product are validated as necessary.*

*- Instructions and procedures are written in clear and unambiguous language.*

*- Operators are trained to carry out and document procedures. - Records are made, manually or by instruments, during manufacture that demonstrate that all the steps required by the defined procedures and instructions were in fact taken and that the quality of the product was as expected. Deviations are investigated and documented.*

*- Records of manufacture (including distribution) that enable the complete history of a batch to be traced are retained in a comprehensible and accessible form.*

*- The distribution of the product minimizes any risk to their quality. - A system is available for recalling any batch of product from sale or supply.*

*- Complaints about marketed products are examined, the causes of quality defects are investigated, and appropriate measures are taken with respect to the defective product and to prevent recurrence.*

*GMP guidelines are not prescriptive instructions on how to manufacture products. They are a series of general principles that must be observed during manufacturing. When a company is setting up its quality program and manufacturing process, there may be many ways it can fulfill GMP requirements. It is the company's responsibility to determine the most effective and efficient quality process. Since November 2010 IPL has decided to adequate its working processes to GMP guidelines as sign of respect towards its customer. The entire production process has been restructured in order to fulfill the above mentioned requirements.*

**ATEX - DIRECTIVE 2014/34/UE and 99/92/EC** on equipment and protective systems intended for use in potentially explosive atmospheres. Directive 2014/34/UE, better known under the acronym ATEX (Atmospheres Explosibles) sets out requirements concerning the use of equipments and devices in potentially explosion hazard areas. ATEX Directive came into force on 30 March 2014 and has been compulsory since 20 April 2016 for all EU Member States, replacing the previous directive 94/9/EC; all EU marketed products must comply with ATEX certification, independently from manufacturing site and regulations, whereas they are installed in places at risk of explosion. Beside the Directive 2014/34/UE is also applicable Directive 99/92/EC, concerning the requirements in terms of safety in workplace, which is important particularly as regards the operational conditions of equipment and devices. The Directive classifies devices and applicative areas as follows:

*-Products of group I (categories M1 and M2) and products of group II (categories 1,2,3)*

*Zone 0: area where it is permanently present or for long periods or often an explosive atmosphere consisting in a mixture of air and flammable substances in the form of gas, vapor or fog.*

*Zone 1: area in which during normal activities the formation of an explosive atmosphere consisting in a mixture of air and flammable substances in the form of gas, vapor or fog is likely. Zone 2: area in which during normal activities the formation of an explosive atmosphere consisting of a mixture of air and flammable substances in the form of gas, vapor or mist is not*

Zona 2: área en la que no es probable que se produzca una atmósfera explosiva consistente en una mezcla de aire y sustancias inflamables en forma de gas, vapor o nube de polvo.

Zona 20: área en la que una atmósfera explosiva en forma de nube de polvo combustible está permanentemente presente. Zona 21: área en la que es probable la formación de una atmósfera explosiva en forma de nube de polvo combustible.

Zona 22: área en la que no es probable que se produzca una atmósfera explosiva en forma de nube de polvo combustible o, si se produce, sólo persistirá durante un breve período.

La Directiva ATEX contiene directrices y describe los requisitos generales; es aplicable gracias a varias normas técnicas que especifican con más detalle el método y los requisitos básicos para el diseño, la construcción, el ensayo y el marcado de los equipos destinados a ser utilizados en atmósferas potencialmente explosivas.

Las normas técnicas son desarrolladas por el Comité Técnico de la IEC y son: IEC EN 60079\*\* y IEC ISO EN 80079\*\*. IPL aplica las directrices ATEX con referencia a la ISO 8031 (mangueras y accesorios de plástico y goma y determinación de la resistencia eléctrica). Esta norma, ya aplicada por IPL, establece los métodos de prueba para determinar las propiedades eléctricas de las mangueras acopladas y no acopladas. Suministra además una tabla de clasificación de mangueras en función de sus propiedades eléctricas y los límites de resistencia.

likely and, if it occurs, is only of short duration.

Zone 20: Area in which there is permanently/long periods/often an explosive atmosphere consisting in a cloud of combustible dust.

Zone 21: Area in which during normal activities the formation of an explosive atmosphere consisting in a cloud of combustible powders is probable.

Zone 22: Area where during normal activities the formation of an explosive atmosphere consisting in a cloud of combustible dust is not probable and, if it occurs, is only of short duration. The ATEX directive contains guidelines and describes general requirements, it can be applied thanks to different technical standards that specify in more detail the method and the basic requirements for the design, construction, testing and marking of devices for use in atmospheres potentially explosive.

IEC technical standards harmonized as EN:

IEC EN 60079 - \*\* Explosive atmospheres – Part \*\*-

IEC ISO EN 80079- \*\* Explosive atmospheres – Part \*\*-

Ipl applies to ATEX guidelines in compliance with ISO 8031 (Rubber and plastic hoses and hoses assemblies - Determination for electrical resistance). This Directive establishes test methods to determine electrical properties on assembled and unassembled hoses. Moreover it provides a hose classification chart according to electrical properties and resistance limits and plastic hoses and hoses assemblies - Determination for electrical resistance). This Directive establishes test methods to determine electrical properties on assembled and unassembled hoses. Moreover it provides a hose classification chart according to electrical properties and resistance limits.

**TABLA DE CLASIFICACIÓN ISO 8031, MANGUERAS Y LÍMITES DE RESISTENCIA ELÉCTRICA**  
**ISO 8031 CLASSIFICATION, TERMINOLOGY AND LIMITS OF ELECTRICAL RESISTANCE**

| GRADO<br>GRADE             | DESCRIPCIÓN<br>DESCRIPTION                                                                                                                                                                          | MONTAGE ENTRE ACCESSORIES DE AMBOS EXTREMOS<br>DE LA MANGUERA.<br>RESISTANCE R/ASSEMBLY BETWEEN THE FITTINGS AT THE ENDS | CATEGORÍA<br>CATEGORY               |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>M</b>                   | <b>ELECTRICALLY BONDED</b><br>Al menos dos cables metálicos flexibles de conexión, con o sin espiral metálico.<br>At least two flexible metal cables for connection, with or without a metal spring | $R < 10^2 \Omega$                                                                                                        | <b>CONDUCTIVO</b><br>CONDUCTIVE     |
| <b>-</b>                   | <b>CONTINUOUS ELECTRICALLY BONDED</b><br>Espiral metálica conectada eléctricamente a los accesorios<br>Metallic elic/ elics electrically connected to the fittings                                  | $R < 10^2 \Omega$                                                                                                        | <b>CONDUCTIVO</b><br>CONDUCTIVE     |
| <b><math>\Omega</math></b> | <b>CONDUCTIVE</b><br>Incorpora una o más capas de goma o plástico conductor<br>It incorporates one or more layers of conductive rubber or plastic                                                   | $R < 10^6 \Omega$                                                                                                        | <b>CONDUCTIVO</b><br>CONDUCTIVE     |
| <b><math>\Omega</math></b> | <b>ANTISTATIC</b><br>Incorpora una o más capas de goma o plástico antiestático<br>It incorporates one or more layers of antistatic rubber or plastic                                                | $10^3 \Omega < R < 10^8 \Omega$                                                                                          | <b>ANTIESTÁTICO</b><br>ANTISTATIC   |
| <b>-</b>                   | <b>INSULATING</b>                                                                                                                                                                                   | $R > 10^8 \Omega$                                                                                                        | <b> AISLANTES</b><br>INSULATING     |
| <b>-</b>                   | <b>DISCONTINUOUS</b><br>Puede contener hilos metálicos o espiral de acero, pero no están conectados a accesorios.<br>It may contain wires or metal elics, but not connected to the fittings         | $R > 2,5 \times 10^4 \Omega$                                                                                             | <b>DISCONTINUO</b><br>DISCONTINUOUS |

Todos los certificados actualizados están disponibles en el sitio web del IPL, en el área de descargas / All updated Standards are available on IPL website, under Download Area



# Tabla de resistencia químicas

## Chemical resistance chart

| LEYENDA / LEGENDA |                            |
|-------------------|----------------------------|
| <b>A</b>          | Excelente / Excellent      |
| <b>B</b>          | Bueno / Good               |
| <b>C</b>          | Aceptable / Suitable       |
| <b>X</b>          | No resistente / Do not use |
| -                 | Sin datos / No data        |

| Media                                     | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|-------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                           | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| acetaldehyde, aqueous                     | B         | X     | B         | X     | B        | X     | A     | B     | B       | X     | -       | -     | -     |
| acetamide                                 | X         | -     | X         | -     | X        | -     | A     | -     | B       | -     | B       | -     | -     |
| acetic acid 10%                           | X         | -     | B         | C     | A        | C     | A     | -     | B       | B     | C       | X     | C     |
| acetic acid 100%                          | X         | -     | X         | -     | X        | -     | X     | -     | B       | C     | X       | -     | -     |
| acetic acid 3%                            | C         | X     | A         | B     | A        | B     | A     | -     | A       | A     | X       | -     | B     |
| acetic acid ethyl ester (ethyl acetates)  | X         | -     | X         | -     | X        | -     | B     | X     | X       | -     | C       | X     | X     |
| acetic anhydride                          | X         | -     | X         | -     | X        | -     | A     | B     | A       | A     | A       | -     | -     |
| acetone                                   | X         | -     | X         | -     | X        | -     | B     | C     | -       | -     | X       | -     | X     |
| acetylacetone                             | X         | -     | X         | -     | X        | -     | -     | -     | -       | -     | X       | -     | -     |
| acetylene                                 | A         | A     | A         | A     | B        | C     | A     | -     | A       | B     | A       | -     | -     |
| acids, generally (see exact media)        | C         | -     | B         | C     | A        | B     | B     | C     | A       | B     | C       | X     | -     |
| acrylic acid ethylester                   | X         | -     | X         | -     | X        | -     | C     | X     | C       | X     | C       | X     | -     |
| acrylic esters (ethyl acrylate)           | X         | -     | X         | -     | X        | -     | A     | -     | A       | -     | B       | -     | -     |
| acrylonitrile                             | X         | -     | X         | -     | X        | -     | C     | X     | B       | C     | C       | -     | -     |
| adipic acid, aqueous                      | C         | -     | B         | C     | A        | B     | A     | A     | A       | A     | X       | -     | -     |
| Aethylenediamine                          | A         | -     | A         | -     | A        | -     | A     | -     | B       | -     | C       | X     | -     |
| air, containing oil - oil                 | A         | -     | X         | -     | X        | -     | X     | -     | B       | -     | C       | -     | -     |
| air, dry                                  | A         | A     | A         | A     | A        | A     | A     | A     | A       | A     | A       | A     | -     |
| alcohols, generally (see exact media)     | B         | X     | B         | X     | B        | X     | A     | B     | A       | A     | B       | X     | -     |
| aliphatics, generally (see exact media)   | A         | B     | A         | B     | C        | X     | C     | X     | B       | X     | X       | -     | X     |
| alkalis, generally (see exact media)      | B         | C     | A         | B     | A        | B     | B     | B     | A       | A     | B       | X     | -     |
| allyl alcohol                             | C         | X     | C         | X     | C        | X     | A     | A     | A       | C     | X       | -     | -     |
| allyl chloride                            | X         | -     | X         | -     | X        | -     | B     | X     | A       | X     | A       | -     | -     |
| alum, aqueous                             | A         | B     | A         | A     | A        | B     | A     | A     | A       | A     | A       | -     | B     |
| aluminium acetates                        | C         | -     | B         | -     | A        | A     | A     | -     | A       | -     | X       | -     | -     |
| aluminium chloride, 10%                   | B         | C     | A         | B     | A        | A     | A     | -     | A       | -     | X       | -     | B     |
| aluminium fluoride                        | C         | X     | C         | X     | A        | -     | A     | -     | A       | -     | A       | C     | -     |
| aluminium hydroxide                       | C         | X     | B         | X     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| aluminium nitrate                         | C         | -     | B         | -     | A        | -     | -     | -     | A       | -     | B       | -     | -     |
| aluminium phosphates                      | B         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| aluminium sulfate, aqueous                | B         | X     | A         | C     | A        | A     | A     | B     | A       | A     | A       | -     | B     |
| aminoethanols                             | X         | -     | X         | -     | X        | -     | A     | -     | C       | -     | X       | -     | -     |
| ammonia, aqueous 100%                     | X         | -     | X         | -     | A        | A     | A     | A     | C       | -     | A       | C     | -     |
| ammonia, aqueous 3% (liquid ammonia)      | C         | -     | A         | B     | A        | A     | A     | A     | C       | X     | A       | A     | -     |
| ammonia, gaseous                          | B         | X     | A         | C     | A        | A     | A     | B     | A       | A     | A       | A     | B     |
| ammonium acetate, aqueous                 | X         | -     | C         | X     | A        | A     | A     | A     | A       | -     | C       | X     | B     |
| ammonium carbonate, aqueous               | X         | -     | C         | X     | A        | B     | A     | A     | A       | A     | B       | X     | B     |
| ammonium chloride, aqueous 3% (salmiac)   | A         | B     | A         | B     | A        | A     | A     | A     | A       | A     | A       | -     | B     |
| ammonium diphosphat, aqueous              | C         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| ammonium fluorides, aqueous               | X         | -     | X         | -     | A        | C     | A     | A     | A       | A     | -       | -     | -     |
| ammonium metaphosphat, aqueous            | A         | -     | A         | -     | -        | -     | -     | -     | A       | -     | -       | -     | -     |
| ammonium nitrate, aqueous                 | C         | X     | B         | X     | A        | A     | A     | A     | A       | A     | A       | -     | B     |
| ammonium phosphates, aqueous              | B         | X     | B         | X     | A        | A     | A     | A     | A       | A     | A       | -     | B     |
| ammonium sulfate                          | A         | X     | A         | C     | A        | A     | A     | A     | A       | -     | A       | -     | B     |
| ammonium thiocyanate                      | C         | -     | B         | -     | A        | -     | -     | -     | -       | -     | A       | -     | -     |
| amyl alcohols - pentanols                 | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | X     |
| amyl chlorides                            | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | X     |
| aniline                                   | X         | -     | X         | -     | X        | -     | -     | -     | B       | C     | C       | -     | -     |
| aniline hydrochloride                     | X         | -     | X         | -     | B        | X     | -     | -     | X       | -     | X       | -     | -     |
| anole - cyclohexanol (see cyclohexanol)   | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| anone - cyclohexanone (see cyclohexanone) | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| anthraquinonesulfonic acids, aqueous      | X         | -     | X         | -     | A        | -     | A     | -     | A       | -     | X       | -     | -     |
| antifreezes - see exact media             | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| antimony chlorides, free of water         | X         | -     | X         | -     | A        | A     | A     | A     | A       | B     | C       | X     | -     |

| Media                                            | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|--------------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                                  | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| antimony-III-chlorides, aqueous                  | C         | X     | B         | X     | A        | A     | A     | A     | A       | A     | B       | X     | -     |
| aqua fortis (see nitric acid)                    | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| aqua regia (nitrohydrochloric acid)              | X         | -     | X         | -     | X        | -     | X     | -     | C       | -     | C       | -     | B     |
| argon                                            | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| aromatics, generally (see exact media)           | X         | -     | X         | -     | X        | -     | C     | X     | C       | X     | X       | -     | X     |
| arsenic acid, aqueous                            | C         | X     | C         | X     | A        | B     | A     | A     | A       | A     | B       | X     | B     |
| asphalt                                          | B         | X     | B         | X     | B        | C     | B     | X     | C       | X     | C       | X     | -     |
| ASTM-oils (see oil)                              | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| ATE-brake fluids - brake fluids                  | X         | -     | X         | -     | A        | -     | -     | -     | A       | -     | C       | -     | -     |
| barium chloride, aqueous                         | A         | C     | A         | C     | A        | A     | A     | A     | A       | -     | A       | -     | -     |
| barium hydroxide, aqueous                        | C         | X     | B         | C     | A        | A     | A     | A     | A       | A     | A       | -     | -     |
| barium sulfate                                   | A         | -     | A         | -     | A        | -     | B     | -     | A       | -     | A       | -     | -     |
| barium sulfide                                   | C         | X     | B         | C     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| basic aluminium acetate (see aluminium acetates) | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| battery acid - sulfuric acid                     | X         | -     | X         | -     | C        | X     | B     | C     | B       | C     | X       | -     | A     |
| beef tallow (beef fat) - (see oil, animal)       | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| beer                                             | A         | -     | A         | -     | A        | A     | A     | -     | A       | -     | A       | -     | -     |
| benzaldehyde                                     | X         | -     | X         | -     | X        | -     | A     | -     | X       | -     | X       | -     | X     |
| benzene                                          | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| benzoic acid, aqueous                            | C         | X     | B         | C     | A        | B     | A     | A     | A       | A     | C       | X     | -     |
| benzyl alcohol                                   | X         | -     | X         | -     | C        | X     | A     | C     | A       | -     | A       | -     | -     |
| benzyl benzoate                                  | X         | -     | X         | -     | -        | -     | -     | -     | A       | -     | A       | -     | -     |
| benzylchloride                                   | X         | -     | X         | -     | A        | -     | X     | -     | X       | -     | B       | X     | X     |
| bismuth carbonates                               | A         | -     | A         | -     | A        | -     | -     | -     | -       | -     | A       | -     | -     |
| bitumen (asphalt)                                | B         | X     | B         | X     | B        | C     | B     | X     | C       | X     | C       | X     | -     |
| black liquor (cellulose-/ pulp-production)       | X         | -     | X         | -     | -        | -     | -     | -     | X       | A     | X       | -     | -     |
| bone oils                                        | A         | -     | A         | -     | B        | -     | X     | -     | -       | -     | B       | C     | -     |
| borax, aqueous                                   | B         | C     | A         | A     | A        | -     | A     | -     | -       | -     | A       | -     | -     |
| boric acid, aqueous                              | B         | C     | A         | B     | A        | A     | A     | A     | A       | A     | -       | -     | -     |
| brake fluid, ATE-                                | X         | X     | X         | X     | A        | -     | A     | A     | A       | A     | B       | -     | -     |
| brake fluid, ATS-                                | X         | X     | X         | X     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| brake fluid, out of glycol ethers                | X         | -     | X         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| bromine                                          | X         | -     | X         | -     | X        | -     | X     | -     | C       | X     | X       | -     | B     |
| bromine water                                    | X         | -     | X         | -     | X        | -     | -     | -     | B       | -     | X       | -     | -     |
| bromobenzene                                     | X         | -     | X         | -     | X        | -     | C     | X     | -       | -     | X       | -     | -     |
| bromochloromethane                               | X         | -     | X         | -     | X        | -     | C     | X     | X       | -     | X       | -     | -     |
| butadiene                                        | B         | C     | A         | B     | A        | A     | C     | X     | A       | A     | C       | X     | -     |
| butane, gaseous                                  | A         | -     | A         | -     | C        | X     | C     | X     | A       | -     | X       | -     | X     |
| butane, liquid                                   | A         | -     | A         | -     | B        | -     | -     | -     | A       | -     | C       | -     | X     |
| butene, aqueous                                  | A         | -     | A         | -     | B        | -     | X     | -     | A       | -     | C       | -     | -     |
| butter                                           | B         | -     | A         | -     | B        | -     | X     | -     | -       | -     | C       | -     | -     |
| butter milk                                      | B         | -     | A         | -     | B        | -     | A     | -     | B       | -     | A       | -     | -     |
| butyl acetates                                   | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | X     |
| butyl benzoate                                   | A         | -     | A         | -     | -        | -     | -     | -     | X       | -     | X       | -     | -     |
| butyl carbitol                                   | X         | -     | X         | -     | -        | -     | -     | -     | B       | -     | B       | -     | -     |
| butyl oleate                                     | X         | -     | X         | -     | -        | -     | -     | -     | X       | -     | A       | -     | -     |
| butyl phenol                                     | X         | -     | X         | -     | C        | X     | -     | -     | X       | -     | X       | -     | -     |
| butyl stearate                                   | A         | -     | A         | -     | A        | -     | -     | -     | B       | -     | X       | -     | -     |
| butylalcohol                                     | B         | C     | B         | C     | B        | C     | -     | -     | A       | A     | B       | -     | -     |
| butylamine                                       | B         | -     | B         | -     | X        | -     | -     | -     | -       | -     | B       | -     | -     |
| butylether                                       | X         | -     | C         | -     | A        | -     | -     | -     | -       | -     | C       | -     | -     |
| butylglycol, aqueous                             | A         | -     | A         | -     | C        | -     | A     | B     | A       | A     | B       | -     | -     |
| butylglycol, aqueous                             | X         | -     | X         | -     | B        | -     | X     | -     | X       | -     | B       | -     | -     |
| butylmediol                                      | A         | -     | A         | -     | -        | -     | -     | -     | B       | -     | -       | -     | -     |

| Media                                               | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|-----------------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                                     | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| butyraldehyde                                       | X         | -     | X         | -     | -        | -     | -     | -     | C       | -     | C       | X     | -     |
| butyric acid                                        | C         | X     | B         | C     | A        | C     | -     | -     | C       | -     | C       | -     | B     |
| calcium acetate                                     | B         | -     | B         | -     | A        | A     | -     | -     | B       | -     | C       | X     | -     |
| calcium bisulfate, aqueous                          | C         | X     | B         | C     | A        | -     | A     | -     | A       | -     | A       | -     | X     |
| calcium bisulphite, aqueous                         | C         | -     | C         | -     | A        | -     | -     | -     | A       | -     | B       | -     | X     |
| calcium carbonate                                   | A         | -     | A         | -     | A        | A     | X     | -     | A       | -     | A       | -     | -     |
| calcium chloride, aqueous 10%                       | B         | X     | A         | C     | A        | A     | A     | A     | A       | -     | A       | -     | -     |
| calcium hydroxide, aqueous                          | A         | C     | A         | B     | A        | A     | A     | -     | A       | -     | B       | -     | -     |
| calcium hypochlorite                                | X         | -     | X         | -     | A        | A     | -     | -     | A       | -     | C       | X     | -     |
| calcium nitrate                                     | A         | -     | A         | -     | A        | A     | A     | -     | A       | -     | A       | A     | -     |
| calcium oxide (lime)                                | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | B       | -     | B     |
| calcium phosphates, aqueous                         | B         | -     | B         | -     | -        | -     | A     | -     | A       | -     | A       | -     | -     |
| calcium sulfate                                     | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| calcium sulfide                                     | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| camphor                                             | X         | -     | X         | -     | -        | -     | -     | -     | C       | X     | -       | -     | -     |
| carbitol                                            | X         | -     | X         | -     | C        | -     | -     | -     | B       | -     | B       | -     | -     |
| carbon dioxide, dry                                 | A         | A     | A         | A     | A        | A     | A     | A     | A       | A     | A       | A     | B     |
| carbon dioxide, wet (carbonic acid)                 | B         | -     | A         | -     | A        | A     | A     | A     | A       | A     | A       | -     | -     |
| carbon disulfite                                    | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| carbon oxide (carbon monoxide)                      | A         | A     | A         | A     | A        | A     | A     | A     | A       | A     | A       | -     | -     |
| caro's acid                                         | -         | -     | -         | -     | A        | -     | -     | -     | B       | -     | -       | -     | -     |
| castor oil                                          | A         | -     | A         | -     | B        | C     | B     | -     | A       | -     | A       | -     | -     |
| caustic potash (see potash lye)                     | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| celluloseacetate                                    | A         | -     | A         | -     | -        | -     | -     | -     | -       | -     | A       | -     | -     |
| chloral hydrate                                     | X         | -     | X         | -     | X        | -     | -     | -     | B       | -     | -       | -     | -     |
| chloramine, aqueous                                 | B         | -     | B         | -     | -        | -     | A     | -     | A       | -     | -       | -     | -     |
| chloric acid, aqueous                               | X         | -     | C         | X     | A        | B     | X     | -     | A       | C     | X       | -     | -     |
| chloride of lime (bleach)                           | X         | -     | X         | -     | B        | C     | A     | -     | A       | A     | X       | X     | -     |
| chlorinated water                                   | X         | -     | C         | -     | B        | C     | C     | X     | B       | -     | C       | -     | -     |
| chlorine oxides                                     | X         | -     | X         | -     | B        | -     | -     | -     | A       | -     | C       | -     | -     |
| chlorine, aqueous                                   | X         | -     | X         | -     | X        | -     | X     | -     | C       | X     | X       | -     | B     |
| chlorine, gaseous dry                               | X         | -     | X         | -     | X        | -     | X     | -     | C       | -     | X       | -     | B     |
| chloroacetic acid, mono                             | X         | -     | X         | -     | A        | C     | A     | -     | B       | -     | X       | -     | B     |
| chlorobenzene                                       | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | X     |
| chloroform (trichloromethanes) (see chloromethanes) | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | X     |
| chloromethanes (chloroform, dichloromethane)        | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| chloroprene (chloro butadiene)                      | X         | -     | X         | -     | X        | -     | X     | -     | B       | -     | X       | -     | -     |
| chlorosulfuric acid                                 | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | B     |
| chromic acid 10%                                    | X         | -     | C         | X     | A        | -     | B     | C     | A       | -     | B       | -     | B     |
| chromic acid 17%                                    | X         | -     | X         | -     | A        | -     | C     | X     | X       | -     | A       | -     | B     |
| chromic acid 50%                                    | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | B       | -     | -     |
| citric acid, aqueous                                | B         | X     | A         | C     | A        | A     | A     | -     | B       | -     | B       | -     | -     |
| coal tar                                            | C         | -     | C         | -     | B        | -     | -     | -     | C       | -     | A       | -     | -     |
| coconut oil                                         | A         | A     | A         | A     | A        | -     | B     | C     | C       | -     | A       | A     | -     |
| coconuts fatty alcohol                              | X         | -     | X         | -     | A        | B     | A     | -     | -       | -     | A       | A     | -     |
| copper acetates, aqueous                            | B         | -     | B         | -     | A        | -     | A     | -     | -       | -     | C       | -     | -     |
| copper chloride, aqueous                            | A         | -     | A         | -     | A        | -     | A     | A     | A       | -     | A       | -     | -     |
| copper cyanide                                      | C         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| copper fluoride, aqueous                            | X         | -     | X         | -     | -        | -     | A     | A     | A       | -     | A       | -     | -     |
| copper hydroxide                                    | A         | -     | A         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| copper nitrate, aqueous                             | C         | X     | C         | X     | C        | -     | A     | A     | A       | -     | A       | -     | -     |
| copper sulfate, aqueous                             | B         | -     | B         | -     | B        | C     | A     | A     | A       | -     | A       | A     | -     |
| cottonseed oil                                      | A         | -     | A         | -     | A        | A     | -     | -     | C       | -     | A       | -     | -     |
| creosote (coal tar)                                 | X         | -     | X         | -     | X        | -     | -     | -     | C       | -     | A       | -     | -     |
| cresols                                             | X         | -     | X         | -     | X        | -     | C     | X     | C       | -     | A       | -     | X     |
| crotonaldehyde (butenal)                            | C         | X     | B         | C     | X        | -     | -     | -     | A       | -     | A       | -     | -     |
| cyclohexane                                         | A         | B     | A         | B     | X        | -     | B     | X     | X       | -     | A       | -     | X     |
| cyclohexanol                                        | C         | X     | B         | X     | X        | -     | A     | A     | B       | -     | X       | -     | X     |
| cyclohexanone                                       | X         | -     | X         | -     | X        | -     | B     | X     | X       | -     | X       | -     | X     |
| cyclohexylamine                                     | X         | -     | X         | -     | A        | -     | -     | -     | -       | -     | X       | -     | -     |
| DEKALIN                                             | X         | -     | X         | -     | A        | -     | -     | -     | X       | -     | A       | -     | -     |
| detergents, generally (see exact media)             | B         | C     | A         | B     | A        | C     | A     | A     | A       | -     | A       | -     | -     |

| Media                                        | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|----------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                              | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| developing dyes, generally (see exact media) | B         | -     | B         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| dextrin, aqueous                             | -         | -     | -         | -     | A        | -     | A     | A     | -       | -     | A       | -     | -     |
| diacetone alcohol                            | B         | X     | B         | X     | X        | -     | -     | -     | C       | -     | X       | -     | B     |
| dibenzylether                                | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | A       | -     | -     |
| dibutyl ether                                | X         | -     | X         | -     | B        | X     | C     | X     | -       | -     | X       | -     | -     |
| dibutylamine                                 | X         | -     | X         | -     | -        | -     | -     | -     | X       | -     | X       | -     | -     |
| dichloroacetic acid                          | X         | -     | X         | -     | -        | -     | B     | C     | X       | -     | C       | X     | -     |
| dichlorobenzenes                             | X         | -     | X         | -     | X        | -     | C     | X     | -       | -     | B       | -     | -     |
| dichloroethanes                              | X         | -     | X         | -     | X        | -     | C     | X     | -       | -     | B       | -     | -     |
| dichloroethylenes                            | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | B       | -     | -     |
| diethyl ether                                | A         | -     | A         | -     | X        | -     | C     | -     | C       | -     | X       | -     | -     |
| diethylamine                                 | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| diethylbenzene                               | X         | -     | X         | -     | A        | -     | -     | -     | X       | -     | X       | -     | -     |
| diethylene glycol                            | C         | -     | C         | -     | B        | -     | A     | A     | A       | -     | A       | -     | -     |
| diglycolic acid, aqueous                     | A         | -     | A         | -     | A        | C     | A     | A     | -       | -     | A       | -     | -     |
| dimethyl ether                               | C         | -     | C         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| dimethylamine                                | X         | -     | X         | -     | X        | -     | C     | X     | X       | -     | X       | -     | -     |
| dimethylanilin (xylydines)                   | B         | -     | B         | -     | X        | -     | -     | -     | X       | -     | B       | -     | -     |
| dimethylformamide                            | X         | -     | X         | -     | X        | -     | C     | X     | -       | -     | X       | -     | X     |
| dimethylheptanon                             | X         | -     | X         | -     | X        | -     | C     | X     | -       | -     | X       | -     | -     |
| dioxane                                      | X         | -     | X         | -     | X        | -     | B     | C     | X       | -     | X       | -     | -     |
| diphenyl                                     | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | A       | -     | -     |
| diphenyl chloride                            | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | A       | -     | -     |
| diphenyl ether                               | X         | -     | X         | -     | X        | -     | B     | C     | X       | -     | B       | -     | -     |
| dipropylene glycol                           | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | A       | -     | -     |
| dodecanol (lauryl alcohol, 1-dodecanol)      | A         | -     | A         | -     | A        | -     | A     | A     | A       | -     | A       | -     | -     |
| epichlorhydrin                               | X         | -     | X         | -     | X        | -     | -     | -     | A       | -     | X       | X     | -     |
| essential oil of, generally                  | B         | -     | B         | -     | X        | -     | C     | -     | X       | -     | A       | -     | B     |
| ethane                                       | A         | -     | A         | -     | A        | -     | A     | -     | B       | -     | A       | -     | -     |
| ethanol 100%                                 | B         | X     | A         | C     | C        | X     | B     | X     | A       | -     | A       | -     | b     |
| ethanol 50%                                  | B         | X     | A         | C     | B        | X     | A     | B     | -       | -     | A       | -     | A     |
| ethanol, 10% (ethyl alcohol, spirit)         | B         | C     | A         | B     | A        | A     | -     | -     | A       | A     | A       | -     | A     |
| ethyl chloride                               | X         | -     | X         | -     | X        | -     | C     | X     | C       | -     | A       | -     | B     |
| ethylbenzene                                 | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| ethylbromide                                 | B         | -     | B         | -     | X        | -     | -     | -     | X       | -     | B       | -     | X     |
| ethylene                                     | A         | -     | A         | -     | A        | -     | -     | -     | X       | -     | B       | -     | -     |
| ethylene chloride dichloroethanes            | -         | -     | -         | -     | -        | -     | -     | -     | X       | -     | B       | -     | B     |
| ethylene chlorohydrin                        | X         | -     | X         | -     | X        | -     | B     | -     | B       | -     | X       | -     | B     |
| ethylene glycol (glycol)                     | B         | X     | A         | C     | B        | -     | A     | A     | A       | A     | A       | A     | B     |
| ethylene oxide, gaseous                      | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | B     |
| fatty acids with 1-7 C-atoms, generally      | C         | X     | B         | C     | A        | -     | -     | -     | C       | -     | C       | -     | B     |
| fatty acids with >7 C-atoms, generally       | B         | C     | A         | B     | A        | -     | -     | -     | C       | -     | C       | -     | B     |
| fatty alcohols, generally (see exact media)  | C         | -     | B         | -     | B        | -     | C     | -     | B       | -     | B       | -     | -     |
| fermentation gas (marsh gas)                 | A         | -     | A         | -     | A        | -     | A     | A     | A       | A     | -       | -     | -     |
| fertilizing salt, aqueous                    | X         | -     | C         | X     | A        | A     | A     | A     | A       | A     | -       | -     | -     |
| fish liver oil                               | A         | -     | A         | -     | X        | -     | A     | -     | B       | -     | B       | -     | -     |
| fish needle oil                              | B         | -     | B         | -     | X        | -     | -     | -     | X       | -     | C       | -     | -     |
| fluorbenzene                                 | X         | -     | X         | -     | -        | -     | X     | -     | X       | -     | X       | -     | -     |
| Fluoride of boron acid 65%                   | X         | -     | X         | -     | A        | -     | -     | -     | B       | -     | X       | -     | -     |
| fluorine, gaseous                            | X         | -     | X         | -     | C        | -     | X     | -     | X       | -     | C       | -     | -     |
| fluorosilicic acid, aqueous                  | X         | -     | X         | -     | A        | A     | -     | -     | A       | B     | B       | C     | A     |
| formaldehyde, aqueous                        | B         | X     | B         | X     | B        | C     | A     | A     | A       | -     | A       | B     | A     |
| formamide                                    | X         | -     | X         | -     | X        | -     | A     | A     | A       | A     | -       | -     | -     |
| formic acid, 10%                             | C         | X     | B         | X     | A        | -     | A     | C     | A       | B     | B       | X     | B     |
| formic acid, 100%                            | X         | -     | X         | -     | B        | X     | B     | X     | C       | X     | X       | -     | -     |
| formic acid, 3%                              | B         | X     | A         | B     | A        | A     | A     | B     | A       | A     | A       | C     | B     |
| freon R 11 (frigen)                          | C         | -     | C         | -     | -        | -     | -     | -     | A       | -     | X       | -     | X     |
| freon R 113 (frigen)                         | C         | -     | C         | -     | -        | -     | -     | -     | A       | -     | X       | -     | -     |
| freon R 114 (frigen)                         | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | X       | -     | -     |
| freon R 12 (frigen)                          | C         | -     | C         | -     | B        | -     | -     | -     | A       | -     | X       | -     | -     |
| freon R 22 (frigen)                          | C         | -     | C         | -     | -        | -     | X     | -     | X       | -     | X       | -     | -     |
| fruit juice, fruit wine                      | B         | C     | B         | C     | A        | -     | -     | -     | A       | A     | A       | A     | -     |

| Media                                      | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|--------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                            | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| furan                                      | X         | -     | X         | -     | A        | -     | -     | -     | X       | -     | -       | -     | -     |
| furfural                                   | X         | -     | X         | -     | X        | -     | X     | -     | C       | -     | C       | -     | -     |
| gallic acid                                | X         | -     | C         | X     | A        | -     | -     | -     | A       | -     | B       | -     | -     |
| gasoline, ASTM-Fuel A                      | A         | -     | A         | -     | X        | X     | X     | -     | A       | -     | C       | -     | -     |
| gasoline, ASTM-Fuel B                      | C         | -     | X         | -     | X        | X     | X     | -     | X       | -     | C       | -     | -     |
| gasoline, ASTM-Fuel C                      | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | X       | -     | -     |
| gasoline, diesel/ diesel oil/ heating oil  | C         | -     | X         | -     | X        | X     | X     | -     | X       | -     | C       | -     | -     |
| gasoline, FAM-Fuel DIN 51604-A             | A         | -     | A         | -     | X        | X     | X     | -     | -       | -     | -       | -     | -     |
| gasoline, FAM-Fuel DIN 51604-B             | B         | -     | B         | -     | X        | X     | X     | -     | -       | -     | -       | -     | -     |
| gasoline, FAM-Fuel DIN 51604-C             | X         | -     | X         | -     | X        | X     | X     | -     | -       | -     | -       | -     | -     |
| gasoline, flight- (kerosene)               | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | C       | -     | -     |
| gasoline, generally (see exact media)      | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | C       | X     | X     |
| gasoline, white spirits                    | X         | X     | X         | X     | X        | X     | X     | -     | X       | -     | X       | -     | -     |
| gasoline-benzene (50/ 50%)                 | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | X       | -     | -     |
| gasoline-benzene (60/ 40%)                 | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | X       | -     | -     |
| gasoline-benzene (70/ 30%)                 | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | C       | -     | -     |
| gasoline-benzene (80/ 20%)                 | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | C       | -     | -     |
| gasoline-benzene-ethanol (50 /30 / 20%)    | X         | -     | X         | -     | X        | X     | X     | -     | X       | -     | X       | -     | -     |
| gelatin                                    | B         | C     | A         | B     | X        | -     | A     | A     | A       | -     | A       | -     | -     |
| glucose (dextrose)                         | B         | C     | A         | B     | A        | B     | A     | A     | A       | -     | A       | -     | -     |
| glue (e.g. for wood)                       | B         | -     | B         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| glycerol                                   | A         | A     | A         | A     | A        | C     | A     | A     | A       | A     | A       | -     | B     |
| glycine, aqueous 10%                       | X         | -     | X         | -     | A        | -     | A     | -     | B       | C     | B       | C     | -     |
| glycol - (see ethylene glycol)             | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| glycolic acid, 30%                         | X         | -     | C         | X     | A        | A     | A     | -     | A       | A     | A       | -     | -     |
| helium                                     | A         | A     | A         | A     | A        | A     | A     | A     | A       | A     | A       | A     | -     |
| heptane                                    | A         | A     | A         | A     | X        | -     | A     | -     | B       | C     | X       | -     | -     |
| hexanal                                    | X         | -     | X         | -     | -        | -     | -     | -     | X       | -     | X       | -     | -     |
| hexane                                     | A         | B     | A         | B     | X        | -     | X     | -     | B       | -     | X       | -     | -     |
| hexanetriol                                | X         | -     | X         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| hexanol                                    | X         | -     | X         | -     | X        | -     | X     | -     | C       | -     | X       | -     | -     |
| hexene                                     | A         | -     | A         | -     | -        | -     | -     | -     | C       | -     | X       | -     | -     |
| hydraulic fluid, hydraulic oils DIN 51 524 | A         | A     | A         | A     | C        | -     | -     | -     | X       | -     | C       | -     | -     |
| hydraulic fluid, oil-in-water-emulsion HFA | A         | A     | A         | A     | -        | -     | -     | X     | C       | -     | X       | -     | -     |
| hydraulic fluid, phosphoric esters HFD     | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| hydraulic fluid, polyglycol-water HFC      | B         | X     | A         | C     | -        | -     | -     | -     | A       | -     | B       | -     | -     |
| hydraulic fluid, water-oil-emulsion HFB    | X         | -     | X         | -     | -        | -     | -     | -     | B       | -     | -       | -     | -     |
| hydrazine                                  | X         | -     | X         | -     | A        | B     | -     | -     | C       | -     | X       | -     | -     |
| hydrazine hydrate                          | C         | X     | B         | C     | A        | -     | A     | -     | A       | -     | C       | -     | -     |
| hydrobromic acid 50%                       | X         | -     | C         | X     | A        | A     | A     | A     | A       | A     | B       | B     | -     |
| hydrochloric acid, 10%                     | X         | -     | B         | C     | A        | B     | A     | B     | A       | A     | B       | C     | B     |
| hydrochloric acid, 3%                      | C         | X     | A         | B     | A        | A     | A     | A     | A       | A     | B       | B     | -     |
| hydrochloric acid, 40%                     | X         | -     | X         | -     | B        | C     | B     | C     | B       | C     | X       | -     | A     |
| hydrofluoric acid 10%                      | C         | X     | B         | X     | A        | A     | -     | -     | A       | A     | B       | C     | A     |
| hydrofluoric acid 40%                      | X         | -     | C         | X     | A        | B     | -     | -     | A       | A     | B       | C     | -     |
| hydrofluoric acid 70%                      | X         | -     | X         | -     | C        | X     | -     | -     | A       | A     | X       | -     | A     |
| hydrogen                                   | A         | -     | A         | -     | A        | -     | A     | A     | A       | A     | A       | A     | -     |
| hydrogen cyanide                           | c         | -     | b         | -     | a        | c     | -     | -     | b       | x     | c       | x     | -     |
| hydrogen peroxide, 3%                      | A         | B     | A         | B     | A        | A     | A     | B     | A       | A     | A       | -     | A     |
| hydrogen peroxide, 30%                     | B         | X     | B         | X     | B        | C     | B     | C     | -       | -     | -       | -     | X     |
| hydrogen sulfide, dry or wet               | B         | X     | B         | X     | X        | -     | A     | -     | A       | A     | B       | C     | -     |
| hydrogen sulfitess                         | X         | -     | C         | X     | A        | -     | B     | -     | A       | -     | C       | -     | -     |
| hydroquinone, aqueous                      | X         | -     | X         | -     | A        | C     | -     | -     | A       | -     | C       | -     | -     |
| hydrosilicofluoric acid, aqueous           | X         | -     | X         | -     | A        | -     | -     | -     | B       | -     | X       | -     | -     |
| hydroxylamine sulfate                      | X         | -     | X         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| ink, for writing                           | A         | -     | A         | -     | A        | A     | A     | -     | A       | -     | A       | -     | -     |
| iron sulfates, aqueous                     | B         | C     | A         | B     | A        | -     | A     | B     | A       | A     | A       | -     | -     |
| iron(III)-chloride, aqueous 10%            | B         | C     | A         | B     | A        | -     | A     | B     | A       | A     | A       | -     | -     |
| isobutylalcohol                            | X         | -     | X         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| isooctane                                  | A         | B     | A         | C     | X        | -     | X     | -     | A       | -     | A       | -     | -     |
| isooctanol                                 | X         | -     | X         | -     | X        | -     | -     | -     | B       | -     | C       | -     | -     |
| isophorone                                 | C         | -     | C         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |

| Media                                               | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|-----------------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                                     | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| isopropanol (isopropyl alcohol)                     | B         | X     | A         | X     | C        | X     | -     | -     | X       | -     | X       | -     | -     |
| isopropylacetate                                    | C         | X     | B         | X     | C        | X     | -     | -     | X       | -     | X       | -     | -     |
| isopropylbenzene (cumene)                           | X         | -     | C         | X     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| isopropylchloride                                   | X         | -     | X         | -     | -        | -     | X     | -     | X       | -     | X       | -     | -     |
| isopropylether                                      | C         | X     | B         | X     | C        | -     | X     | -     | B       | C     | X       | -     | -     |
| ketones, generally (see exact media)                | X         | -     | X         | -     | X        | -     | B     | C     | X       | -     | B       | C     | X     |
| lactic acid, aqueous 3%                             | B         | C     | A         | B     | A        | B     | A     | A     | A       | A     | A       | -     | A     |
| lactic acid, aqueous 50%                            | X         | -     | X         | -     | X        | -     | B     | C     | X       | -     | B       | C     | -     |
| lactic acid, aqueous10%                             | C         | X     | B         | C     | B        | C     | A     | A     | A       | A     | B       | -     | -     |
| lanolin (wool fat)                                  | A         | A     | A         | A     | B        | X     | X     | -     | C       | -     | C       | -     | -     |
| laughing gas                                        | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| lavender oil                                        | B         | -     | -         | -     | -        | -     | X     | -     | X       | -     | X       | -     | -     |
| lead acetates, aqueous                              | A         | A     | A         | A     | A        | A     | A     | -     | A       | A     | A       | -     | B     |
| lead arsenate, aqueous                              | c         | -     | a         | -     | a        | -     | -     | -     | -       | -     | a       | -     | -     |
| lead nitrate, aqueous                               | b         | -     | a         | -     | a        | -     | a     | -     | a       | -     | b       | -     | -     |
| lead sulfate                                        | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | B       | -     | -     |
| lemon juice                                         | B         | -     | A         | -     | A        | -     | -     | -     | A       | -     | B       | -     | -     |
| lime - calcium oxide                                | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| limonene (dipentene)                                | B         | -     | B         | -     | -        | -     | X     | -     | X       | -     | B       | -     | -     |
| linoleic acid                                       | B         | -     | A         | -     | -        | -     | X     | -     | X       | -     | C       | -     | -     |
| linseed oil (flaxseed oil)                          | B         | C     | B         | C     | B        | X     | B     | -     | A       | -     | A       | -     | X     |
| liquide manure                                      | X         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| lithium bromide                                     | A         | -     | A         | -     | -        | -     | A     | -     | A       | -     | B       | -     | -     |
| lithium chloride                                    | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| magnesium chloride, aqueous 10%                     | A         | X     | A         | C     | A        | B     | A     | A     | A       | A     | A       | -     | A     |
| magnesium hydroxide, aqueous                        | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| magnesium silikates (talci)                         | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| magnesium sulfate, aqueous                          | A         | B     | A         | B     | A        | A     | A     | A     | A       | A     | A       | C     | -     |
| magnesium sulfitess, aqueous                        | C         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| maize germ oil                                      | B         | C     | B         | C     | B        | C     | -     | -     | A       | -     | B       | -     | -     |
| maleic acid, aqueous                                | C         | X     | B         | C     | A        | C     | A     | B     | A       | A     | B       | C     | -     |
| malic acid, aqueous (apple juice)                   | X         | -     | C         | X     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| margarine                                           | A         | A     | A         | A     | A        | B     | X     | -     | B       | C     | C       | X     | -     |
| marsh                                               | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| menthol                                             | c         | x     | c         | x     | -        | -     | a     | b     | a       | a     | x       | -     | -     |
| mercury                                             | A         | A     | A         | A     | A        | A     | A     | A     | A       | A     | A       | -     | -     |
| mercury nitrates                                    | B         | X     | B         | C     | A        | -     | -     | -     | -       | -     | A       | -     | -     |
| mercury salts, aqueous generally                    | X         | -     | X         | -     | B        | -     | A     | -     | A       | -     | A       | -     | -     |
| mercury(II)-chloride                                | B         | X     | B         | C     | C        | X     | A     | -     | A       | -     | A       | -     | -     |
| mesityl oxide                                       | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| methane                                             | A         | -     | A         | -     | A        | -     | X     | -     | B       | -     | C       | X     | -     |
| methanol (methyl alcohol)                           | B         | X     | B         | C     | C        | X     | A     | B     | A       | -     | B       | -     | -     |
| methyl acetate                                      | X         | -     | X         | -     | C        | X     | A     | B     | X       | -     | X       | -     | -     |
| methyl acrylate                                     | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| methyl bromide                                      | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| methyl chloride (see chloromethanes)                | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| methyl chloroform trichloroethanes                  | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| methyl ethyl ketone (MEK)                           | X         | -     | X         | -     | X        | -     | C     | X     | C       | X     | X       | -     | -     |
| methyl glycol - ethylene glycol                     | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| methyl isobutyl ketone                              | X         | -     | X         | -     | X        | -     | C     | X     | X       | -     | X       | -     | -     |
| methyl pyrrolidone (NMP)                            | X         | -     | X         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| methylaniline, aqueous                              | X         | -     | X         | -     | C        | X     | A     | -     | A       | -     | X       | -     | -     |
| microbes (microorganisms)                           | X         | X     | A         | A     | A        | A     | B     | C     | A       | A     | C       | C     | -     |
| mixed acid-sulfuric acid + nitric acid + water      | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| mixed acid: sulfuric acid + phosphoric acid + water | X         | -     | X         | -     | B        | -     | B     | X     | A       | -     | X       | -     | -     |
| molasses                                            | X         | C     | B         | X     | A        | B     | A     | B     | A       | A     | A       | -     | -     |
| morpholine                                          | X         | -     | X         | -     | X        | -     | A     | B     | A       | A     | A       | -     | -     |
| must (fruit wine)                                   | A         | -     | A         | -     | A        | -     | A     | B     | A       | B     | X       | -     | -     |
| mustard                                             | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | -       | -     | -     |
| myristyl alcohol (tetradecanol)                     | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | B       | -     | -     |
| naphtha                                             | B         | -     | B         | -     | X        | -     | C     | X     | X       | -     | X       | -     | -     |
| naphthalene                                         | C         | X     | C         | X     | X        | -     | X     | -     | C       | X     | X       | -     | -     |

| Media                                        | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|----------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                              | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| natural gas, dry                             | A         | -     | A         | -     | A        | -     | C     | X     | C       | X     | C       | X     | -     |
| natural gas, wet with 1-7 C-atoms            | B         | -     | B         | -     | X        | -     | X     | -     | B       | C     | C       | -     | -     |
| natural gas, wet with >7 C-atoms             | A         | -     | A         | -     | C        | X     | -     | C     | B       | C     | C       | -     | -     |
| nickel acetate                               | X         | -     | X         | -     | -        | -     | -     | -     | X       | -     | C       | -     | -     |
| nickel chloride                              | B         | X     | A         | C     | A        | -     | A     | -     | X       | -     | C       | -     | -     |
| nickel sulfate                               | B         | C     | A         | B     | A        | A     | A     | A     | A       | A     | A       | B     | -     |
| nitric acid, 10%                             | X         | -     | X         | -     | B        | C     | A     | B     | A       | B     | C       | X     | -     |
| nitric acid, 100%                            | X         | -     | X         | -     | X        | -     | X     | -     | C       | X     | X       | -     | -     |
| nitric acid, 25%                             | X         | -     | X         | -     | C        | X     | B     | C     | B       | C     | C       | -     | -     |
| nitric acid, 50%                             | X         | -     | X         | -     | X        | -     | C     | X     | B       | X     | X       | -     | -     |
| nitroliethanol                               | X         | -     | X         | -     | X        | -     | -     | -     | B       | -     | A       | -     | -     |
| nitrobenzene                                 | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| nitrogen                                     | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| nitrogen oxides (nitrous fumes)              | X         | -     | X         | -     | X        | -     | X     | -     | C       | -     | -       | -     | -     |
| nitroglycerin                                | X         | -     | X         | -     | A        | C     | -     | -     | A       | -     | X       | -     | -     |
| nitromethane                                 | X         | -     | X         | -     | B        | -     | C     | -     | C       | X     | X       | -     | -     |
| nitropropanes                                | X         | -     | X         | -     | -        | -     | C     | -     | C       | X     | X       | -     | -     |
| nitrotoluenes                                | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | -       | -     | -     |
| nonyl alcohol (nonanol)                      | X         | -     | X         | -     | -        | -     | -     | -     | B       | -     | B       | -     | -     |
| octane                                       | A         | -     | A         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| octanols (octyl alcohol)                     | X         | -     | X         | -     | X        | -     | A     | -     | A       | -     | B       | -     | -     |
| oil, animal                                  | A         | A     | A         | A     | B        | C     | C     | X     | B       | C     | C       | X     | -     |
| oil, ASTM-oil nr. 1                          | A         | A     | A         | A     | C        | X     | X     | -     | B       | C     | C       | X     | -     |
| oil, ASTM-oil nr. 2                          | A         | A     | A         | A     | C        | X     | X     | -     | B       | C     | B       | B     | -     |
| oil, ASTM-oil nr. 3                          | A         | C     | C         | X     | C        | X     | C     | X     | B       | C     | B       | B     | -     |
| oil, ATF-                                    | A         | A     | A         | A     | -        | -     | C     | X     | C       | X     | C       | X     | -     |
| oil, hydraulic - hydraulic fluid             | A         | A     | A         | A     | B        | X     | C     | C     | B       | C     | B       | C     | -     |
| oil, mineral                                 | A         | A     | A         | A     | B        | C     | B     | C     | B       | C     | B       | C     | -     |
| oil, vegetable                               | B         | C     | A         | B     | B        | C     | -     | -     | C       | -     | C       | -     | A     |
| oleic acid                                   | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | -       | -     | A     |
| oleum                                        | A         | A     | A         | A     | -        | C     | B     | C     | B       | C     | B       | C     | -     |
| olive oil                                    | C         | X     | B         | C     | C        | C     | X     | X     | A       | B     | B       | C     | A     |
| ozone                                        | C         | -     | C         | -     | C        | -     | C     | -     | A       | -     | B       | -     | -     |
| palm oil                                     | B         | -     | B         | -     | C        | -     | -     | -     | C       | -     | B       | -     | B     |
| palmitic acid                                | A         | -     | A         | -     | C        | -     | C     | X     | C       | X     | B       | -     | B     |
| para formaldehyde                            | B         | -     | A         | -     | -        | -     | -     | -     | -       | -     | A       | -     | -     |
| paraffin (paraffin oil)                      | A         | -     | A         | -     | B        | X     | X     | -     | C       | X     | B       | -     | -     |
| pectins                                      | A         | -     | A         | -     | A        | A     | A     | -     | A       | -     | A       | -     | -     |
| pentachlorophenol                            | X         | -     | X         | -     | -        | -     | -     | -     | -       | -     | C       | -     | -     |
| pentanes                                     | A         | -     | A         | -     | A        | -     | -     | -     | X       | -     | X       | -     | -     |
| pentanols (amyl alcohols)                    | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| pentyl acetates                              | X         | -     | X         | -     | X        | -     | C     | X     | X       | -     | X       | -     | -     |
| perchloric acid, aqueous                     | X         | -     | X         | -     | B        | C     | B     | X     | A       | A     | X       | -     | -     |
| petroleum                                    | C         | -     | X         | -     | X        | -     | X     | -     | C       | X     | C       | X     | -     |
| petroleum ether                              | C         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | X     | -     |
| phenol                                       | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | B       | C     | -     |
| phenylhydrazine                              | X         | -     | X         | -     | X        | -     | C     | X     | C       | X     | X       | -     | -     |
| phosgene                                     | X         | -     | X         | -     | X        | -     | X     | -     | B       | C     | X       | -     | -     |
| phosphoric acid 3%                           | B         | C     | A         | B     | A        | A     | A     | A     | A       | A     | B       | C     | -     |
| phosphoric acid 50%                          | X         | -     | X         | -     | A        | B     | A     | B     | A       | A     | C       | X     | -     |
| phosphorus trichloride oxide                 | x         | -     | x         | -     | x        | -     | b     | c     | a       | a     | C       | X     | -     |
| photo developer, generally (see exact media) | x         | -     | x         | -     | b        | -     | a     | -     | a       | -     | b       | -     | -     |
| photo emulsion, generally (see exact media)  | X         | -     | X         | -     | B        | -     | A     | -     | A       | -     | B       | -     | -     |
| photo fixing, generally (see exact media)    | X         | -     | X         | -     | A        | -     | A     | -     | A       | -     | B       | -     | -     |
| phthalic ester (phthalates)                  | X         | -     | C         | -     | X        | B     | B     | C     | A       | B     | X       | -     | -     |
| picric acid                                  | C         | X     | B         | C     | A        | -     | A     | -     | A       | -     | B       | C     | -     |
| polychlorinated biphenyls                    | B         | -     | B         | -     | C        | -     | -     | -     | X       | -     | X       | -     | -     |
| potash lye 10%                               | B         | C     | A         | B     | A        | B     | A     | B     | A       | A     | B       | C     | -     |
| potash lye 50%                               | X         | -     | C         | X     | B        | C     | B     | C     | A       | A     | C       | X     | -     |
| potassium acetate, aqueous                   | C         | X     | C         | X     | A        | -     | A     | -     | A       | -     | X       | -     | -     |
| potassium borate, aqueous                    | c         | x     | b         | x     | a        | -     | a     | -     | a       | -     | a       | -     | -     |
| potassium bromate 10%                        | X         | -     | X         | -     | A        | -     | A     | A     | A       | A     | B       | C     | -     |

| Media                                        | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|----------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                              | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| potassium bromide, aqueous                   | C         | X     | B         | X     | A        | -     | A     | A     | A       | A     | A       | -     | -     |
| potassium carbonate, aqueous (potash)        | C         | X     | C         | X     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| potassium chlorate, aqueous                  | C         | X     | A         | C     | A        | A     | A     | A     | A       | A     | B       | C     | -     |
| potassium chloride, aqueous                  | B         | X     | A         | C     | A        | A     | A     | A     | A       | A     | B       | C     | -     |
| potassium chromate, aqueous 40%              | X         | -     | X         | -     | A        | C     | A     | -     | A       | -     | B       | C     | -     |
| potassium cyanide, aqueous                   | C         | X     | C         | X     | B        | -     | A     | -     | A       | -     | B       | -     | -     |
| potassium dichromate, aqueous 40%            | X         | -     | C         | X     | B        | C     | A     | -     | A       | -     | C       | -     | -     |
| potassium hydrogencarbonate                  | B         | -     | B         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| potassium hydrogensulfate, aqueous           | X         | -     | C         | X     | -        | -     | A     | -     | A       | -     | B       | -     | -     |
| potassium hydroxide (see potash lye)         | -         | -     | -         | -     | -        | -     | A     | -     | -       | -     | -       | -     | -     |
| potassium hypochlorite                       | X         | -     | X         | -     | A        | -     | -     | -     | C       | -     | C       | -     | -     |
| potassium iodide, aqueous                    | X         | -     | X         | -     | A        | -     | A     | A     | A       | A     | B       | C     | -     |
| potassium nitrate, aqueous                   | B         | X     | A         | C     | A        | -     | A     | A     | A       | A     | B       | C     | -     |
| potassium perchlorate, aqueous               | X         | -     | X         | -     | A        | -     | A     | A     | A       | A     | A       | B     | -     |
| potassium permanganate, aqueous 5%           | C         | X     | B         | C     | B        | C     | A     | A     | A       | A     | A       | B     | -     |
| potassium peroxodisulfate                    | X         | -     | C         | X     | A        | C     | A     | A     | A       | A     | A       | A     | -     |
| potassium phosphates                         | A         | -     | A         | -     | -        | -     | -     | -     | A       | -     | X       | -     | -     |
| potassium sulfate, aqueous                   | A         | C     | A         | B     | A        | A     | A     | A     | A       | A     | B       | -     | -     |
| potassium sulfite                            | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| propane, wet or gaseous                      | A         | -     | A         | -     | X        | -     | X     | -     | C       | X     | X       | -     | -     |
| propargyl alcohol, aqueous 7%                | X         | -     | X         | -     | -        | -     | B     | C     | B       | C     | B       | C     | -     |
| propene (propylene)                          | X         | -     | X         | -     | -        | -     | X     | -     | X       | -     | X       | -     | -     |
| propionic acid (propane acid)                | X         | -     | X         | -     | A        | -     | C     | X     | C       | X     | X       | -     | -     |
| propyl acetates                              | X         | -     | X         | -     | -        | -     | -     | -     | X       | -     | X       | -     | -     |
| propylamines                                 | X         | -     | X         | -     | -        | -     | -     | -     | X       | -     | X       | -     | -     |
| propylene                                    | X         | -     | X         | -     | B        | -     | -     | -     | X       | -     | -       | -     | -     |
| propylene glycols (propanediols)             | X         | -     | X         | -     | X        | -     | A     | A     | A       | A     | A       | -     | -     |
| propylene oxide                              | X         | -     | X         | -     | -        | -     | A     | -     | X       | -     | X       | -     | -     |
| pyridine                                     | X         | -     | X         | -     | X        | -     | C     | X     | -       | -     | X       | -     | -     |
| pyrrole                                      | X         | -     | X         | -     | -        | -     | -     | -     | X       | -     | X       | -     | -     |
| radiation, radioactive 108 Rad               | B         | B     | B         | B     | C        | C     | -     | -     | A       | -     | X       | X     | -     |
| radiation, ultraviolet                       | B         | B     | B         | B     | B        | B     | B     | B     | A       | A     | B       | B     | -     |
| rapeseed oil                                 | A         | X     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| raw sugar juice                              | X         | -     | C         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| salicylic acid                               | B         | -     | A         | -     | A        | C     | A     | -     | A       | -     | A       | -     | -     |
| sebacic esters                               | X         | -     | X         | -     | X        | -     | B     | -     | X       | -     | -       | -     | -     |
| silver salts, generally (see exact media)    | C         | X     | C         | X     | A        | C     | A     | B     | A       | A     | B       | C     | -     |
| silicic acids, aqueous                       | X         | -     | C         | X     | A        | B     | A     | A     | A       | A     | B       | C     | -     |
| silicium dioxide - silicic acids             | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| silicon oil/ -fat                            | A         | B     | A         | B     | X        | -     | -     | -     | B       | C     | B       | -     | -     |
| silver nitrate, aqueous                      | X         | -     | X         | -     | A        | C     | A     | B     | A       | A     | B       | C     | -     |
| sodium acetate, aqueous                      | C         | X     | B         | X     | A        | -     | A     | -     | A       | -     | B       | -     | -     |
| sodium benzoate, aqueous                     | A         | -     | A         | -     | A        | -     | A     | A     | A       | A     | B       | C     | -     |
| sodium bromide                               | -         | -     | -         | -     | A        | -     | -     | -     | A       | -     | -       | -     | -     |
| sodium carbonate (soda ash)                  | C         | X     | B         | C     | A        | B     | A     | A     | A       | A     | A       | A     | -     |
| sodium chlorate, aqueous                     | C         | X     | B         | X     | A        | A     | A     | C     | A       | A     | B       | -     | -     |
| sodium chloride, aqueous (table-salt)        | B         | C     | B         | C     | A        | A     | A     | A     | A       | A     | A       | A     | -     |
| sodium chlorite, aqueous                     | -         | -     | -         | -     | B        | X     | A     | C     | A       | A     | -       | -     | -     |
| sodium cyanide                               | C         | X     | C         | X     | A        | A     | A     | -     | A       | -     | A       | -     | -     |
| sodium dichromate                            | C         | X     | C         | X     | X        | -     | -     | -     | A       | -     | B       | -     | -     |
| sodium fluorides, generally                  | C         | X     | C         | X     | A        | -     | -     | -     | A       | -     | B       | -     | -     |
| sodium hydrogencarbonate, aqueous            | C         | X     | C         | X     | A        | -     | A     | A     | A       | A     | A       | -     | -     |
| sodium hydrogensulfate                       | C         | X     | B         | X     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| sodium hydroxide (caustic soda), aqueous 10% | B         | X     | B         | X     | A        | A     | A     | B     | A       | A     | A       | -     | -     |
| sodium hydroxide (caustic soda), aqueous 10% | C         | X     | B         | C     | A        | B     | A     | B     | A       | A     | B       | C     | -     |
| sodium hydroxide (caustic soda), aqueous 50% | X         | -     | X         | -     | X        | -     | C     | X     | A       | A     | C       | X     | -     |
| sodium hypochlorite, aqueous 10%             | C         | X     | B         | C     | A        | -     | C     | X     | A       | B     | C       | X     | -     |
| sodium metaphosphates                        | A         | -     | A         | -     | A        | -     | -     | -     | B       | -     | A       | -     | -     |
| sodium nitrate, aqueous 10%                  | B         | C     | B         | C     | A        | B     | A     | A     | A       | A     | B       | -     | -     |
| sodium nitrite                               | C         | X     | B         | X     | A        | A     | A     | A     | A       | A     | B       | C     | -     |
| sodium perborate                             | X         | -     | X         | -     | B        | C     | A     | -     | A       | -     | A       | -     | -     |
| sodium phosphates                            | B         | C     | B         | C     | A        | A     | A     | A     | A       | A     | B       | -     | -     |



| Media                                    | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|------------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                          | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| sodium silicate, aqueous                 | X         | -     | C         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| sodium sulfate, aqueous (Glauber's salt) | B         | C     | A         | B     | A        | A     | A     | A     | A       | A     | A       | -     | -     |
| sodium sulfides                          | B         | -     | B         | -     | A        | -     | A     | B     | A       | B     | -       | -     | -     |
| sodium sulfite, aqueous 3%               | A         | B     | A         | B     | A        | A     | A     | B     | A       | A     | A       | -     | -     |
| sodium thiosulfate                       | B         | -     | A         | -     | A        | A     | A     | A     | A       | A     | A       | -     | -     |
| solvents, generally (see exact media)    | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| soybeans oil                             | A         | -     | A         | -     | B        | X     | B     | C     | B       | -     | A       | -     | -     |
| spirits                                  | A         | -     | A         | -     | A        | A     | -     | -     | A       | A     | A       | -     | -     |
| starch sugar                             | B         | C     | B         | C     | A        | -     | A     | -     | A       | A     | A       | -     | -     |
| starch, aqueous                          | X         | -     | X         | -     | A        | -     | A     | A     | A       | A     | A       | -     | -     |
| steam of oleum                           | X         | -     | X         | -     | C        | -     | -     | -     | C       | -     | X       | -     | -     |
| stearic acid                             | C         | X     | B         | C     | A        | B     | B     | C     | A       | C     | A       | -     | -     |
| styrene                                  | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| succinic acid, aqueous                   | X         | -     | C         | X     | A        | A     | A     | A     | A       | A     | B       | X     | -     |
| sugar syrup (saccharose)                 | B         | C     | A         | B     | A        | B     | A     | A     | A       | A     | A       | A     | -     |
| sugar, dry                               | A         | B     | A         | A     | A        | A     | A     | A     | A       | A     | A       | A     | -     |
| sulfonic acids, generally                | X         | -     | X         | -     | A        | B     | B     | C     | A       | -     | A       | -     | -     |
| sulfur trioxide (sulfur acid anhydride)  | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| sulfuric acid, 25%                       | X         | -     | C         | X     | B        | C     | A     | B     | A       | B     | C       | X     | -     |
| sulfuric acid, 3%                        | C         | X     | A         | B     | A        | A     | A     | A     | A       | A     | A       | C     | -     |
| sulfuric acid, 50%                       | X         | -     | X         | -     | C        | X     | B     | C     | B       | C     | X       | -     | -     |
| sulfuric acid, 90% (fuming, oleum)       | X         | -     | X         | -     | X        | -     | X     | -     | C       | X     | X       | -     | -     |
| sulphur hexafluoride                     | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| tallow (talcum)                          | B         | C     | B         | C     | A        | -     | B     | C     | A       | A     | A       | -     | -     |
| tanning acid - tannine                   | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| tannins (tanning acid)                   | C         | B     | B         | C     | A        | -     | A     | -     | A       | A     | A       | -     | -     |
| tar (tar oil)                            | X         | -     | X         | -     | C        | X     | -     | -     | X       | -     | C       | -     | -     |
| tartaric acid, aqueous                   | B         | C     | A         | B     | A        | -     | A     | A     | A       | A     | A       | -     | -     |
| tea tree oil                             | B         | -     | B         | -     | -        | -     | -     | -     | B       | -     | C       | -     | -     |
| tee, aqueous                             | -         | -     | -         | -     | A        | A     | -     | -     | -       | -     | -       | -     | -     |
| tetrachlorocarbonates - chloro-methanes  | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| tetrachloroethane                        | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| tetrachloroethylene (perchloroethylene)  | X         | -     | X         | -     | X        | -     | X     | -     | C       | X     | X       | -     | -     |
| tetrahydrofuran                          | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| Tetralin (tetrahydronaphthalene)         | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| thionyl chloride                         | X         | -     | X         | -     | X        | -     | X     | -     | A       | -     | X       | -     | -     |
| thiophene                                | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| tin-II-chlorides, aqueous                | C         | X     | B         | C     | A        | B     | A     | B     | B       | C     | B       | -     | -     |
| tincture of iodine                       | X         | -     | X         | -     | B        | -     | -     | -     | B       | -     | X       | -     | -     |
| toluene                                  | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| town gas, free of benzene                | A         | -     | A         | -     | A        | -     | C     | X     | C       | X     | C       | X     | -     |
| transformer oil (see oil)                | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| tributyl phosphate                       | X         | -     | X         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| trichlorethanes (methyl chloroform)      | X         | -     | X         | -     | C        | -     | -     | -     | X       | -     | X       | -     | -     |
| trichloroacetic acid                     | X         | -     | X         | -     | B        | -     | C     | -     | C       | X     | X       | -     | -     |
| trichloroethylene                        | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| trichloromethanes (see chloromethanes)   | -         | -     | -         | -     | -        | -     | -     | -     | -       | -     | -       | -     | -     |
| tricresyl phosphate                      | X         | -     | X         | -     | X        | -     | B     | -     | X       | -     | X       | -     | -     |
| triethylenamine                          | B         | -     | B         | -     | B        | -     | -     | -     | X       | -     | A       | -     | -     |
| triethylene glycol                       | B         | C     | B         | C     | -        | -     | A     | -     | A       | -     | B       | -     | -     |
| turpentine                               | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| turpentine, oil of                       | X         | -     | X         | -     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| urea, aqueous                            | C         | X     | C         | X     | A        | C     | A     | -     | A       | -     | C       | X     | -     |
| urine                                    | A         | -     | A         | -     | A        | -     | -     | -     | A       | -     | A       | -     | -     |
| varnish                                  | C         | -     | B         | -     | X        | -     | -     | -     | X       | -     | X       | -     | -     |
| vaseline                                 | A         | -     | A         | -     | B        | X     | -     | -     | X       | -     | B       | -     | -     |
| vinegar                                  | X         | -     | C         | -     | B        | -     | -     | -     | C       | -     | A       | -     | -     |
| vinyl acetate                            | X         | -     | X         | -     | X        | -     | -     | -     | C       | -     | X       | -     | -     |
| vinyl chloride                           | x         | -     | x         | -     | x        | -     | b     | c     | x       | -     | x       | -     | -     |
| waste water                              | x         | -     | -         | -     | a        | -     | -     | -     | A       | -     | B       | -     | -     |
| water                                    | A         | C     | A         | A     | A        | A     | A     | A     | A       | A     | A       | A     | -     |
| water, mineral water - water             | B         | C     | A         | -     | A        | A     | A     | A     | A       | A     | A       | -     | -     |

| Media                              | Ester-PUR |       | Ether-PUR |       | Soft-PVC |       | TPV   |       | Hypalon |       | Silicon |       | TPE   |
|------------------------------------|-----------|-------|-----------|-------|----------|-------|-------|-------|---------|-------|---------|-------|-------|
|                                    | 23 °C     | 60 °C | 23 °C     | 60 °C | 23 °C    | 60 °C | 23 °C | 60 °C | 23 °C   | 80 °C | 23 °C   | 80 °C | 23 °C |
| water, sea water/ salt water - eau | A         | C     | A         | A     | A        | A     | A     | A     | A       | A     | A       | A     | -     |
| water-glass, aqueous               | X         | -     | C         | X     | A        | B     | A     | A     | A       | A     | B       | C     | -     |
| weathering, generally              | B         | B     | B         | B     | B        | C     | B     | B     | B       | B     | B       | B     | -     |
| whale oils                         | B         | -     | B         | -     | B        | -     | -     | -     | C       | -     | A       | -     | -     |
| wine                               | A         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| wood oil                           | C         | -     | B         | -     | C        | -     | -     | -     | C       | -     | C       | -     | -     |
| XYLAMON                            | C         | -     | C         | -     | -        | -     | X     | -     | X       | -     | X       | -     | -     |
| xylenes                            | X         | X     | X         | X     | X        | -     | X     | -     | X       | -     | X       | -     | -     |
| yeast, aqueous                     | X         | -     | A         | -     | A        | -     | A     | -     | A       | -     | A       | -     | -     |
| zinc acetate, aqueous              | X         | -     | X         | -     | X        | -     | -     | -     | B       | -     | X       | -     | -     |
| zinc chloride, aqueous             | B         | C     | B         | C     | A        | B     | A     | A     | A       | A     | A       | -     | -     |
| zinc sulfate, aqueous              | B         | C     | B         | C     | A        | A     | A     | A     | A       | A     | A       | -     | -     |

#### LEYENDA / LEGENDA

|   |                            |
|---|----------------------------|
| A | Excelente / Excellent      |
| B | Bueno / Good               |
| C | Aceptable / Suitable       |
| X | No resistente / Do not use |
| - | Sin datos / No data        |

# Recomendaciones para el almacenaje y mantenimiento

## Recommendations of storage and maintenance

### Almacenaje y mantenimiento

Los materiales plásticos a lo largo de su vida útil están sujetos a cambios que pueden afectar sus propiedades inclusive sus materiales de refuerzo ya sean de acero o textil que pueden verse afectados por diversos factores o por ser almacenados de una manera inadecuada. A continuación, les ofrecemos recomendaciones para un mejor almacenamiento del producto para prevenir y minimizar su deterioro

**Tiempo de almacenamiento:** el almacenaje debe ser reducido al menor tiempo posible utilizando un sistema continuo de rotación. Cuando no se pueda evitar una duración mayor del almacenamiento, se sugiere reducir el número de rollos por pale evitando sobrecargar los rollos inferiores y comprobar el tubo antes de ser usado. Las mangueras deben ser utilizadas en un tiempo no mayor a dos años desde su manufacturación y un año para mangueras ensambladas. La fecha de la producción de la manguera se encuentra en la misma

**Temperatura y Humedad:** la temperatura ideal para el almacenamiento de nuestras mangueras es de entre 10°C y 25°C. Las mangueras no deben estar sometidas a temperaturas mayores a +40°C o menores a 0°C. En caso de temperaturas menores a -15°C recomendamos tomar precauciones al manipular el producto.

### Exposición a la luz

Recomendamos almacenar nuestros productos en lugares que eviten de forma prolongada la exposición a la luz solar, artificial y agentes atmosféricos, así como fuentes cercanas que puedan generar ozono.

### Contactos con otros materiales

Las mangueras en su almacenamiento no deben entrar en contacto con otras sustancias como disolventes, combustibles, aceites, grasas, sustancias químicas volátiles, ácidos, desinfectantes y líquidos orgánicos en general así como en zonas de ambiente corrosivo.

**Almacenamiento y condiciones de limpieza:** las mangueras deben ser almacenadas sin que estén deformadas, comprimidas o cerca de objetos que puedan perforar o cortar. Se recomienda usar estanterías especiales para estas y asegurarse que el piso este seco antes de colocarlas. También hay que almacenarlas de manera horizontal sin apilar y asegurarse que la altura sea la adecuada evitando deformaciones a las mangueras de abajo. Cuando se está almacenando la manguera, el diámetro interno del rollo debe ser el adecuado y nunca inferior al recomendado por nuestra fábrica de manera de mantener las propiedades mecánicas. Es importante nunca colgar las mangueras en ganchos, las mangueras que sean entregadas en forma vertical se deben almacenar en forma horizontal para evitar que se doblen o se deformen. Tener también especial atención con mangueras que vengan ya ensambladas y evitar almacenar en patios o lugares, donde pueda haber presencia de insectos y roedores.

Aparte de la correcta manipulación y almacenamiento también es importante llevar a cabo una limpieza regular antes y después de su utilización para evitar la contaminación de los medios transportados, así como de los accesorios ensamblados a las mangueras. Se recomienda tapar los extremos de las mangueras para evitar la

*Plastic Materials are subjected during their service life to changes which could affect their physical properties. Even the reinforcement materials, both textile and steel ones, could be affected by different factors, not least an inadequate storage. The following recommendations contain some guidelines to minimize or prevent the deterioration of the stored products.*

**Storage duration:** storage times should be reduced to a minimum through a scheduled rotation system.

*Where a long storage time cannot be avoided, it should be suggested a thorough inspection of the hose before its actual use. The entry into the service of unconnected hoses (see the date stated on the hose marking) should take place within two years whereas a year should be advisable for assemblies.*

**Temperature and humidity:** the ideal temperature for an appropriate storage ranges from 10°C and 25°C. Hoses should not be exposed at temperatures exceeding 40°C or under 0°C. In case of temperatures inferior to -15°C we recommend to take some precautions when handling the hoses: they should not be stored neither near heat sources nor in the presence of high or low humidity levels (they should not exceed 65%).

**Light exposure:** we recommend to store the hoses in rather unlit spaces, especially avoiding direct sunlight or intense illumination sources.

*In presence of windows, a solar shielding is recommended.*

**Contact with other materials:** hoses must not come into contact with solvents, fuels, oils, grease, volatile chemical substances, acids, disinfectants and organic liquids in general.

**Storage and cleaning conditions:** Hoses must be stored without stress, elongations, compressions, extreme deformations and avoiding any contact with sharp or cutting objects. A proper storage on adequate shelves or on a dry floor /ground is recommended. Packaged rolled hoses must be stored horizontally, not piled up. If it is not possible, the height of the pile should be appropriate, to avoid permanent deformations of the hoses placed on the lowest bottom. During storage operations, the internal diameter of the coil must be adequate, in order to keep the mechanical properties of the hose and it must not be inferior to the rate stated by the manufacturer. It's a good rule anywhere, not to hang the hoses on hooks and to store horizontally those hoses which are delivered straight, to avoid any bending. In case of assemblies, it is recommended to place the hoses carefully. The hoses must be protected from rodents.

*In addition to a correct storage and handling, a regular cleaning is equally important, to avoid any pollution of the transported media, which may damage the devices connected to the hose. It is recommended to close carefully both edges of the hose, to prevent the possible entry of foreign bodies.*

entrada de partículas que las contaminen.

Se deben utilizar productos de limpieza específicos y se recomienda evitar el uso de solventes y derivados del petróleo, así como de objetos o productos abrasivos.

Para más información contacte nuestras oficinas

**Manipulación:** las mangueras deben ser movidas cuidadosamente evitando golpes, compresiones o ser arrastradas sobre superficies abrasivas. Si se tienen que doblar o enrollar hacerlo de manera holgada, siempre con radios de curvatura superiores a los descritos en su ficha técnica de catálogo.

Las mangueras que por su peso deban ser transportadas de manera vertical, deben estar provistas de soportes durante el trayecto para evitar que se doblen.

*You should use specific cleaning solutions and we recommend not to use neither solvents (petroleum or paraffin, etc.) nor abrasive, sharp or cutting tools (wire brushes, sandpaper, etc.). For further details contact our offices.*

**Handling:** *Hoses must be moved carefully, avoiding collisions, dragging on abrasive surfaces and compressions. If bent or coiled, they must be pulled gently. Heavy-weight hoses, which are usually delivered straight, must be transported on special supports.*



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| WK 01    | SIL - LIFE W         | 106 |
| WT 01    | SPIRALPRESS WT       | 66  |
| <b>X</b> |                      |     |
| XL 01    | SATURNO L            | 70  |
| XL 06    | SATURNO L SE         | 71  |
| <b>Y</b> |                      |     |
| YO CH    | CLEANWASH            | 94  |
| <b>Z</b> |                      |     |
| ZE 01    | ZEUS PU FOOD         | 85  |
| ZR 01    | VULCANO ZR           | 13  |

