High Purity - Electronics Grade PES
Hydrophilic Polyesulfone (PES) Membrane for Electronics Applications

Electronics Grade PES Cartridges are designed to meet the special needs of the electronics and high purity chemical industries. GEPES membrane cartridges are resistant to most acids and bases and are compatible with most sanitizing agents. The GEPES series delivers high flowrates at low pressure drops; making it an excellent choice for Ultra-Pure water systems. Each cartridge is flushed to 18 MQ with UPW and 100% integrity tested to deliver ultraclean effluent as well as ultra-low extractables.

The Extended Area option (GEPESX) offers up to 40% more surface area. This additional area results in significant increases in flowrate and loading capacity in the same footprint.

Flow Rate vs Pressure Drop

Data represents GEPES. For GEPESX options, multiply given flowrates by 1.4.

Typical Applications
- Ultra-Pure Water Systems
- Fine Chemical Filtration
- Photoresist Chemicals

Construction Materials
Membrane.......................... Polyethersulfone
Support Media......................... Polypropylene
End Caps............................. Polypropylene
Center Core.......................... Polypropylene
Outer Support Cage............... Polypropylene
O-Rings/Gaskets..................... Buna, EPDM, Silicone, Viton®, Teflon® Encapsulated Viton®

Sanitization/Sterilization
Filtered Hot Water................... 80°C for 30 min.
Steam Sterilization............... 121°C for 30 min., multiple cycles

Chemicals: Cartridges are chemically compatible with most chemicals and sanitizing agents.

Note: Stainless steel insert option needed for all cartridges being hot water sanitized or steam sterilized.

Dimensions
Length: 10 to 40 inches (25.4 to 101.6 cm) nominal
Outside Diameter: 2.70 inches (7.0 cm) nominal

Maximum Recommended Operating Conditions
Temperature ......................... 176°F (80°C)

Maximum Differential Pressures
Forward ......................... 50 PSI (3.4 bar) at 20°C
Reverse ......................... 40 PSI (2.7 bar) at 20°C

Toxicity
All polypropylene components meet the specifications for biological safety per USP Class VI – 121°C for plastics.

Food Safety Compliance
Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21CFR. Materials used to produce filter media and hardware are deemed safe for use in contact with foodstuffs in accordance with EU Directives 2002/72/EC, 1935/2004, and/or 10/2011.

Ordering Information

<table>
<thead>
<tr>
<th>GEPES</th>
<th>Rating (μ)</th>
<th>A</th>
<th>Length</th>
<th>C</th>
<th>End Cap Style</th>
<th>O-Rings/Gaskets</th>
<th>Addrs</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEPESX</td>
<td>0.04</td>
<td>10&quot; (25.4 cm)</td>
<td>2 = DOE Flat Gasket</td>
<td>B = Buna</td>
<td>I = Stainless Steel Insert</td>
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</tr>
<tr>
<td></td>
<td>0.1</td>
<td>20&quot; (50.8 cm)</td>
<td>3 = 222 w/ Fin</td>
<td>E = EPDM</td>
<td>CS = 316ss Compression Spring</td>
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<tr>
<td></td>
<td>0.2</td>
<td>30&quot; (76.2 cm)</td>
<td>4 = 222 w/ Flat Cap</td>
<td>S = Silicone</td>
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<tr>
<td></td>
<td>0.45</td>
<td>40&quot; (101.6 cm)</td>
<td>6 = 226 w/ Flat Cap</td>
<td>V = Viton®</td>
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</tr>
<tr>
<td></td>
<td>0.65</td>
<td>16 = 213 Internal O-Ring</td>
<td>7 = 226 w/ Fin</td>
<td>T = Teflon® Encapsulated Viton®</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>16 = 213 Internal O-Ring</td>
<td>18 = 213 Internal O-Ring</td>
<td>Z = Teflon® Encapsulated Silicone</td>
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</table>

DISCLAIMER: Filtration data presented is representative of performance observed in controlled laboratory testing. It is not given as a warranty, specification or statement of fitness for use. Specific performance can vary widely depending on contaminant type, fluid properties, flow rates and environmental conditions. It is recommended that users conduct thorough qualification testing to assure the product functions as required.