**Teffil™**
Superior PTFE Membrane Filters

Teffil™ is a range of superior pleated PTFE membrane filters with PFA supports. These cartridge filters are suitable for use within a number of microelectronics, process and chemical applications.

This chemically inert filter range offers the removal of fine particulate from 0.05-10 micron in challenging operating conditions.

**Applications**

- **Semiconductor**
  Chemical delivery system filtration of strong acid and base solution at room temperature for semiconductor manufacturing.

- **Aggressive chemicals**
  Chemical delivery system filtration of strong acid base solution.

- **Photovoltaic**
  Aggressive chemical processes in the photovoltaic and data storage industries.

- **High Purity Chemicals**

**Features and Benefits**

- **Excellent flow characteristics**
  Optimised up to 95% porosity, uniform pore size distribution and filtration area with low pressure drop, high flow rate and long service life.

- **Full traceability**
  All Teffil™ cartridges are identified with a batch serial number and supplied with a Certificate of Quality.

- **Controlled manufacturing environment**
  Teffil™ cartridges are manufactured in an ISO cleanroom environment by fully gowned staff, minimising the risk of contamination.

- **Fast rinse up time**
  All filters have been flushed with ultrapure DI water (18.2 Megaohm-cm, TOC less than 10ppb).

- **Low binding and fouling**
  Teffil™ filters are manufactured using surface modification agents to ensure minimal extractables and ensure purity performance is not compromised.

World Class Filtration Solutions
Specifications

Materials of Manufacture
Filtration media: Hydrophobic PTFE membrane
End caps: PFA
Centre core: PFA
Outer hardware: PFA
Gaskets/O-rings: PFA encapsulated FKM

Cartridge Dimensions (Nominal)
Diameter: 67mm (2.6")
Length: 254mm (10")

Pore Size Rating
0.05, 0.1, 0.2, 0.45, 1, 5 and 10 microns.

Differential Pressure
Maximum forward differential pressure: 5bar (72.5psi) @ 25°C (77°F)
Recommended Change Out Differential Pressure
2.4bar (34.8psi)
Maximum Operating Temperature
180°C (356°F) at the above conditions.

Metallic Cleanliness
<25µg per device. Ultra-high-purity.

Flow Rates

<table>
<thead>
<tr>
<th>Pore Size (µm)</th>
<th>0.05</th>
<th>0.1</th>
<th>0.2</th>
<th>0.45</th>
<th>1.0</th>
<th>5.0</th>
<th>10.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate (l/min scfm)</td>
<td>0.05</td>
<td>0.15</td>
<td>0.35</td>
<td>0.5</td>
<td>1.0</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Pressure Drop (mbar psid)</td>
<td>0</td>
<td>69</td>
<td>103</td>
<td>138</td>
<td>172</td>
<td>200</td>
<td></td>
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</table>

Dimension Specifications

<table>
<thead>
<tr>
<th>Length (inch)</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>105mm +/-2</td>
<td>110mm +/-2</td>
<td>128mm +/-2</td>
</tr>
<tr>
<td>10</td>
<td>237mm +/-2</td>
<td>242mm +/-2</td>
<td>261mm +/-2</td>
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<tr>
<td>20</td>
<td>463mm +/-3</td>
<td>468mm +/-3</td>
<td>486mm +/-3</td>
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</tbody>
</table>

Total metals (13 elements, ICP-MS)
UHP < 25 ppb / device
Ultra Low Metal < 10 ppb / device

Particle shedding cleanliness
< 5 particles / ml at 0.15µm @10LPM UPW Flow

TOC recovery (per 10" equivalent)
< 5ppb of feed DI water after 120L @ 5LPM

Resistivity recovery (per 10" equivalent)
< 0.5MΩ of feed DI water after 120L @ 5LPM

Ordering Information

Product Code:

<table>
<thead>
<tr>
<th>Series</th>
<th>Pore rating (µm)</th>
<th>Version</th>
<th>Length</th>
<th>Adaptor</th>
<th>Seals</th>
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</thead>
<tbody>
<tr>
<td>FL</td>
<td>P5</td>
<td>S</td>
<td>04</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>0.05</td>
<td>Standard</td>
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<td>Code 3</td>
<td>EPDM</td>
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<tr>
<td></td>
<td>1.0</td>
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<td>250mm (10&quot;)</td>
<td>Code 7</td>
<td>Silicone</td>
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<tr>
<td></td>
<td>2.0</td>
<td></td>
<td>510mm (20&quot;)</td>
<td>Code 8</td>
<td>Viton®</td>
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<tr>
<td></td>
<td>0.2</td>
<td></td>
<td></td>
<td>Code 2</td>
<td>Kalrez/FKM</td>
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</tbody>
</table>

Porvair Filtration Group Ltd.
Queensway, New Milton,
Hampshire, BH25 5NN, UK
Tel: +44 (0)1425 612010
Email: info@porvairfiltration.com

Porvair Filtration Group Inc.
301 Business Lane
Ashland, Virginia 23205, USA
Tel: +1 804 550 1600
Email: infoUS@porvairfiltration.com

Porvair Filtration India PVT. Ltd.
Gangotri Glacier Annex, Kavesar
Opposite Vijay Nagar, Off Ghodbunder Road
Thane (W), 400607, India
Tel: +91 22 25 976464 / +91 22 25 976465
Email: infoIN@porvairfiltration.com