Teffil™ HF
High Flow PTFE Membrane Filters

Teffil™ HF is a range of fully optimised high flow PTFE membrane filters with PFA supports. These cartridge filters are suitable for use within a number of chemical applications within the microelectronics industry, including organic stripper, IPA and other solvent recirculation bath applications.

This chemically inert filter range offers the removal of fine particulate from 0.05-5 micron in challenging operating conditions.

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™ HF cartridges are identified with a batch serial number and supplied with a Certificate of Quality.

- **Controlled manufacturing environment**
  Teffil™ HF 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™ HF filters are manufactured using surface modification agents to ensure minimal extractables and ensure purity performance is not compromised.

Applications

- **Microelectronics**
  Optimised for a broad range of microelectronics organic stripper, IPA and other solvent recirculation.

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

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

- **Solvents**
  UHP solvent treatment for bumping stripper.

- **High Purity Chemicals**
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 and 5 microns.

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>
</tr>
<tr>
<td>20</td>
<td>463mm +/-3</td>
<td>468mm +/-3</td>
<td>486mm +/-3</td>
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Differential Pressure

Maximum forward differential pressure:
5.1bar (75psi) @ 25°C (77°F)
5.1bar (75psi) @ 120°C (248°F)

Operating Temperature

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>Flow rate (l/min scfm)</th>
<th>0.18</th>
<th>0.35</th>
<th>0.53</th>
<th>0.71</th>
<th>0.88</th>
<th>1.06</th>
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<tbody>
<tr>
<td>Flow rate (mbar / psid)</td>
<td>0</td>
<td>69</td>
<td>138</td>
<td>207</td>
<td>275</td>
<td>342</td>
</tr>
</tbody>
</table>

Total metals

UHP < 25 ppb / device
Ultra low metal < 10 ppb / device

Particle shedding cleanliness

< 5 particles / 1ml ≥ 0.15um @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: X X X X X

Series | Pore rating (µm) | Version | Length | Adaptor | Seals |
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<thead>
<tr>
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<tr>
<td>FL</td>
<td>Teffil™</td>
<td>H</td>
<td>04</td>
<td>Code 3</td>
<td>A</td>
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<tr>
<td></td>
<td>5</td>
<td></td>
<td>0.05</td>
<td>Code 3</td>
<td>EPDM</td>
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<td>0.1</td>
<td>Code 7</td>
<td>B</td>
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<td>0.2</td>
<td>Code 8</td>
<td>C</td>
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<td>P5</td>
<td></td>
<td>102mm (4&quot;)</td>
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Porvair Filtration Group Ltd.
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