NANOFINE-PURE Filter Cartridges

TPR Type
(Nylon Nanofiber Media)

Major Applications

- Separation and Purification of next-generation advanced materials
- Filtration in sub-micron range
- Clarification of solvents
- Others

Features & Benefits

- **Adopts proprietary nanofiber material**
  - Accurate removal efficiency equivalent to membrane by integrating nanofibers
  - Stable high efficient filtration from start to end is achieved by fine and uniform pore diameter.

- **High flow rate**
  - About twice higher flow rate than PES membrane*  
  - Compared to our PES membrane 0.1um
  - High porosity and surface aperture ratio compared to membrane, realizing overwhelming high flow rate

- **Reduced total cost of ownership**
  - Can be used as an alternative to expensive membrane filters

- **Excellent solvent resistance**
  - Aromatic and hydrocarbon solvents can also be filtered by using nylon media.

- **100% flushing by ultra-pure water before shipment**

Materials of Construction

- O-Ring
- End Cap
- Core
- Outer Cage
- Support
- Nylon nanofiber media

PES membrane
Nylon membrane
Nylon nanofiber (TPR-002)

Specification

<table>
<thead>
<tr>
<th>Product Type</th>
<th>TPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micron Rating (μm)</td>
<td>0.1</td>
</tr>
<tr>
<td>E.F.A. (m² / 250mm)</td>
<td>0.5</td>
</tr>
<tr>
<td>Dimensions</td>
<td>70.0</td>
</tr>
<tr>
<td>O.D. (mm)</td>
<td>26.1 (for F) / 25.6 (for 0, 5) / 29.5 (for 7)</td>
</tr>
<tr>
<td>I. D. (mm)</td>
<td>26.1 (for F) / 25.6 (for 0, 5) / 29.5 (for 7)</td>
</tr>
<tr>
<td>Materials</td>
<td>Nylon</td>
</tr>
<tr>
<td>Support</td>
<td>Polypropylene</td>
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<tr>
<td>Core, Outer Cage, End Cap</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Maximum ΔP at 20°C (68°F)</td>
<td>0.49MPa (4.9bar, 71psid)</td>
</tr>
<tr>
<td>Maximum Operating Temp.</td>
<td>80°C (176°F)</td>
</tr>
</tbody>
</table>

* For further information on specifications (length, end cap type, etc.), please contact us.

*1 TPR can not be used for acid and high temperature steam, please contact us in detail.
Flow Rate

<table>
<thead>
<tr>
<th>MPa</th>
<th>0.004</th>
<th>0.008</th>
<th>0.012</th>
<th>0.016</th>
<th>0.020</th>
<th>0.024</th>
<th>0.028</th>
<th>0.032</th>
<th>0.036</th>
<th>0.040</th>
<th>0.044</th>
<th>0.048</th>
<th>0.052</th>
<th>0.056</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow Rate (L/min)</td>
<td>0</td>
<td>2.6</td>
<td>5.3</td>
<td>7.9</td>
<td>10.5</td>
<td></td>
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<tr>
<td>Differential Pressure</td>
<td>0.001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Fluid: Refined Water (20°C) Cartridge Length: 250mm
* The data does not include piping pressure drop.

Particle Removal Efficiency

<table>
<thead>
<tr>
<th>PSL Diameter (μm)</th>
<th>Particle Removal Efficiency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>&gt;99.9</td>
</tr>
<tr>
<td>002</td>
<td>&gt;99.9</td>
</tr>
<tr>
<td>005</td>
<td>&gt;99.9</td>
</tr>
</tbody>
</table>

Test Conditions:
- Equipment: UV absorptiometer
- Filtration: Suction filtration
- Fluid: Ultra-pure water
- Dust: Polystyrene latex (PSL)
- Conc.: 0.01 w%

*The above data is based on our test condition, and is not guaranteed value.

Ordering Information

250 L - T P R - 002

- [Nominal Length]: 62.5 = 62.5mm, 125 = 125mm, 250 = 250mm, 500 = 500mm, 750 = 750mm
- [Micron Rating]: 001 = 0.1μm, 002 = 0.2μm, 005 = 0.45μm
- [Gasket/O-Ring]: S = Silicone, E = EPDM, N = NBR, V = FKM, T = FEP Encapsulated FKM (for 0, 5, 7)
- [End Cap Code]: F = Flat Gaskets, 5 = 2-222 O-Ring + Fin
- [Package Code]: A = 1 pc., B = 6pcs, C = 10pcs, F = 25pcs

End Cap Code

Code F
Code 0
Code 5
Code 7

*The contents of the catalog are subject to change without notice.