PPD Mini-Capsule filters are constructed with pleated Polypropylene depth media for prefiling critical pharmaceutical and healthcare liquids including water, chemicals and solvents. Pore sizes range from 0.10 to 100 µm. Additional filter devices scale from laboratory to full production using identical materials to ensure consistent results.

These hydrophilic filters have superior retention and protect downstream filters by removing large amounts of particulate and other contaminants. PPD filters are rated at 99.9% efficiencies at the indicated pore size. Designed for high capacity and long life makes the PPD Mini-Capsule a very cost-effective filter.

Critical Process provides unrivaled delivery times, technical consulting before purchasing, and very competitively priced high-performance products. Our comprehensive testing & analysis and validation services support your team whenever they need it. Your process experts partnering with our filtration experts is how we deliver your company’s solution right the first time.

PPD Mini-Capsule filters are recommended for clarification & prefiltration in:

- Chemicals
- Intermediates
- Buffers
- WFI, Water Purification
- Medications
- Ophthalmics
- Diagnostics
- Device Cleaning

**Clarification & Prefiltration**

**Particle Filtration**

**MINI-CAPSULES – Nominal Dimensions**

- Body Length: 2.85 in. (7.2 cm)
- Overall Length: 3.75 to 5.19 in. (9.5 to 13.2 cm)
- Outside Diameter: 2.95 in. (7.5 cm)
# Maximum Operating Parameters

<table>
<thead>
<tr>
<th></th>
<th>MINI-CAPSULES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid Operational Pressure</td>
<td>80 psi at 68 °F (5.52 bar at 20 °C)</td>
</tr>
<tr>
<td>Gases Operational Pressure</td>
<td>60 psi at 68 °F (4.14 bar at 20 °C)</td>
</tr>
<tr>
<td>Operating Temperature (water)</td>
<td>110 °F at 30 psid (43 °C at 2.07 bar)</td>
</tr>
<tr>
<td>Forward Differential Pressure</td>
<td>50 psid at 68 °F (3.45 bar at 20 °C)</td>
</tr>
<tr>
<td>Reverse Differential Pressure</td>
<td>40 psid at 68 °F (2.76 bar at 20 °C)</td>
</tr>
<tr>
<td>Recommended Changeout Pressure</td>
<td>35 psid (2.41 bar)</td>
</tr>
</tbody>
</table>

# Sanitization & Sterilization*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoclave</td>
<td>250 °F (121 °C), 30 min, 5+ cycles</td>
</tr>
<tr>
<td>Chemical Sanitization</td>
<td>Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.</td>
</tr>
</tbody>
</table>

## Filtration Area

<table>
<thead>
<tr>
<th></th>
<th>Pleated Polypropylene Depth Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>0.44 ft² (413 cm²)</td>
</tr>
</tbody>
</table>

## Construction Materials

<table>
<thead>
<tr>
<th></th>
<th>Pleated Polypropylene Depth Media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filtration Media</td>
<td>Pleated Polypropylene Depth Media</td>
</tr>
<tr>
<td>Media Support</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>End Caps, Center Core, Outer Support Cage, Mini-Capsule Housing</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Sealing Method</td>
<td>Thermal Bonding</td>
</tr>
</tbody>
</table>

## Endotoxins

The levels of bacterial endotoxins in aqueous extracts from PPD Mini-Capsule filters are below current USP limits as specified for water for injection.

## TOC and Conductivity

PPD Mini-Capsule filters conform with TOC standards of USP <643> and the water conductivity standards of USP <645> after an appropriate flush with purified water.

## Toxicity Compliance

Materials used to construct PPD Mini-Capsule filters are non-toxic and meet the requirements for the MEM Elution Cytotoxicity Test and the requirements for Biological Reactivity Tests in the current version of the United States Pharmacopeia (USP) for Class VI - 121 °C Plastics.

## Extractables

PPD Mini-Capsule filters typically exhibit low levels of non-volatile residues.

## Non-Fiber Releasing

PPD Mini-Capsule filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters.

## FDA Compliance

Materials meet the requirements listed by the FDA as appropriate for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440, and 177.2600 as applicable.
Flow rates for Mini-Capsule filters are per filter. The test fluid is water at ambient temperature. Flows are tested using a mini-capsule filter with ½” Sanitary inlet and outlet ports. Rates will vary based on end configuration of the mini-capsule.
PPD Mini-Capsule Filters Ordering Information

All Critical Process filters are configurable to meet customer specifications. Fill in the corresponding codes in the boxes below to build your Part Number.

To consult with one of our technical team members, request a quote or place an order:
call (603) 880-4420 Ext. 106, or send an email to sales@criticalprocess.com

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Mini-Capsule Filters

Pore Size Code
-10 = 0.10 μm
-20 = 0.22 μm
-40 = 0.45 μm
-60 = 0.65 μm
1-0 = 1.0 μm
3-0 = 3.0 μm
5-0 = 5.0 μm
10 = 10 μm
20 = 20 μm
30 = 30 μm
40 = 40 μm
60 = 60 μm
999 = 100 μm

Pre-Sterilized or Not
S = Pre-Sterilized
N = Not Sterilized

Inlet
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
4 = Luer Lock
5 = 1/2” Sanitary*
6 = 1/4” MNPT

Outlet
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
3B = 1/2” Hose Barb with Filling Bell
4 = Luer Lock
5 = 1/2” Sanitary*
6 = 1/4” MNPT

Inlet Vent Port
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
4 = Luer Lock
6 = 1/4” MNPT

Outlet Vent Port
1 = 1/8” Hose Barb
2 = 1/4” Hose Barb
3 = 1/2” Hose Barb
4 = Luer Lock
6 = 1/4” MNPT

*When choosing the Sanitary Inlet/Outlet, the Luer Lock option is required for the Vent Port