

# ABSFLU PO™

Hydrophobic PTFE Membrane Filters for the Pharmaceuticals



## INDUSTRIES & APPLICATIONS

 **Pharmaceuticals** : Process chemicals

ABSFLU PO™ is a hydrophobic PTFE membrane filter designed for sterilization and particulate removal from aggressive chemicals including acids, bases and solvents in a wide range of critical processing for bio and pharmaceutical industries.

ABSFLU PO™ utilizes a high security expanded PTFE membrane with high surface area, providing low pressure drop and long filter service life.

## FEATURES & BENEFITS

- Reliable particle removal efficiency with lower differential pressure drops
- 100% flushed with 18MΩ ultrapure water
- Fully validated
- Repeatedly integrity testable and steam sterilizable
- No binders are present to interrupt product quality
- All polypropylene construction provides excellent chemical compatibility and very low level of extractables
- Available in a wide range of end styles and micron ratings

## TECHNICAL DATA

### Nominal Dimensions

#### Cartridge 68Ø

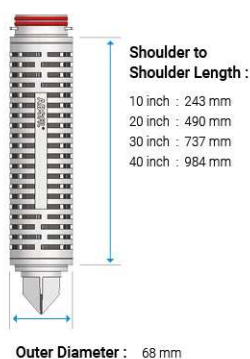
- Length : 250, 500, 750, 1000 mm
- Inner Diameter : 30 mm
- Outer Diameter : 68 mm

#### CAP I

- Length : 143, 216 mm
- Outer Diameter : 71, 73 mm

#### CAP II

- Length : 203, 212 mm
- Outer Diameter : 97 mm



## Capsule series CAP I and CAP II



\* For details, see the Appendix II – Capsule Filter Types

## Materials of Construction

|                     |  |
|---------------------|--|
| • Filtration Media  | Hydrophobic PTFE (Polytetrafluoroethylene) |
| • Support Media     | Polypropylene                              |
| • Inner Core        | Polypropylene                              |
| • Outer Cage        | Polypropylene                              |
| • End Caps          | Polypropylene                              |
| • Shell             | Polypropylene                              |
| • Insert            | STS 304                                    |
| • O-rings / Gaskets | Silicone<br>EPDM<br>Viton<br>TEV           |

## Max. Operating Temperature

- Cartridge : 80°C (176°F)
- Capsules : 60°C (140°F)

## Max. Operating Forward Differential Pressure

- 4 bard (58.0 psid) at 20 °C
- 3 bard (43.5 psid) at 40 °C
- 2 bard (29.0 psid) at 60 °C
- 1 bard (14.5 psid) at 80 °C

# ABSFIL

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**Recommended Change Out Differential Pressure**

2 bard (29.0 psid)

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**Endotoxin**

Meet the requirements of the USP <85> LAL Test,  $\leq 0.25$ EU/ml

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**Filtration Area**

- Cartridge 68Ø : 0.7 m<sup>2</sup> / 10 inch
- CAP I : 0.14 m<sup>2</sup> / unit
- CAP II : 0.34 m<sup>2</sup> / unit

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**Nominal Pore Sizes**

0.1, 0.2, 0.45, 1 µm

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**TOC (Total Organic Carbon)**

Meet the requirements of the USP <643> TOC, <500ppb

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**Bacterial Retention**

$\geq$  LRV7

\* Performed in accordance with ASTM F 838-15, ATCC 19146 Brevundimonas diminuta

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**Conductivity**

Meet the requirements of the USP <645> Conductivity, <1.3uS/cm

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**Food Contact Compliance**

All materials of construction are FDA listed and conform to the relevant requirements of 21 CFR 177

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**NVR (Non-Volatile Residue)**

Meet the requirements of the USP <661> NVR, <15mg

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**Biological Safety**

All materials of construction are conform to the relevant requirements of USP <88> Class VI-121°C, plastics

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**Autoclave Sterilization**

Can be repeatedly autoclaved up to 10cycles of 30minutes at 121°C

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**Particle Releasing**

Meet the requirements of USP<788> Particulate matter,  $\leq 25$ particles/ml at 10µm,  $\leq 3$ particles/ml at 25µm

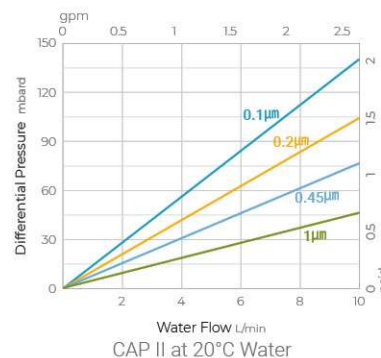
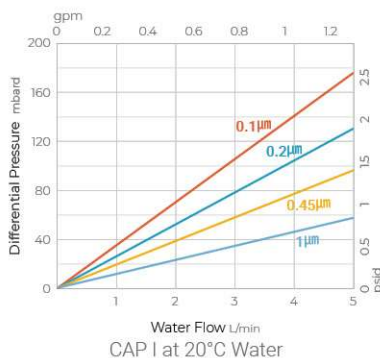
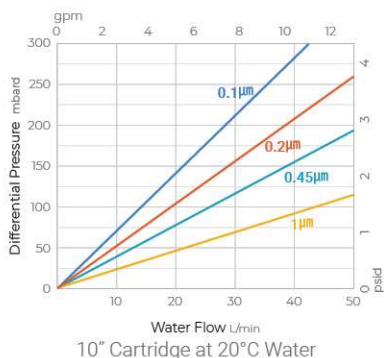
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**Pre-Flush**

Pre-flushed with 18 MΩ UPW at 10LPM for 5min

**TYPICAL CLEAN WATER FLOW**

**CARTRIDGE & CAP**



**ORDERING INFORMATION**

**CARTRIDGES**

|   |            |   |          |  |
|---|------------|---|----------|--|
| ①   | ②          | ③   | ④        | ⑤  |
| <b>TPO</b>  | <b>001</b> | <b>E3</b>   | <b>V</b> | <b>10</b>  |
| <b>MICRON RATING</b>                                    |            | <b>END STYLE</b>  |          | <b>LENGTH</b>  |
| P10 : 0.1µm<br>P20 : 0.2µm<br>P45 : 0.45µm<br>001 : 1µm |            | C1 : DOE<br>C2 : 226Lock/FLAT<br>C3 : c222/cFLAT<br>E3 : 222/FLAT<br>C7 : 226Lock/FIN<br>E8 : 222/FIN |          | S : Silicone<br>E : EPDM<br>V : Viton<br>F : TEV   |
|   |            |   |          | 10 : 250mm<br>20 : 500mm<br>30 : 750mm<br>40 : 1,000mm<br>1E : 254mm<br>2E : 508mm<br>3E : 762mm<br>4E : 1,016mm |

**CAPSULE SERIES**

| ①   | ②             | ③  | ④              | ⑤            | ⑥             |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
|---|---------------|--|----------------|--------------|---------------|-------------------|--------------|--|----|---------------|---------------|----|----------|--|-------|----|---------------|----------|----|---------------|--|--|----|-------------------|-----------|--|----|----|----|-------|----|---------------|--|----|--------------|----------------|--|--|------|------|-------|---------------|-------|---------------|
| <b>C1</b>   | <b>TPO</b>    | <b>001</b>   | <b>S6</b>      | <b>S</b>     | <b>1S</b>     |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| <b>FILTER TYPE</b>                                      |               | <b>END STYLE</b>   |                | <b>SEALS</b> | <b>LENGTH</b> |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| C1 : CAP I<br>C2 : CAP II                               |               | <table border="1"> <thead> <tr> <th>TYPE</th> <th>CODE</th> <th>In/Out Connection</th> <th>Vent / Drain</th> </tr> </thead> <tbody> <tr> <td rowspan="2"></td> <td>S6</td> <td>1/4" Swagelok</td> <td>1/8" Swagelok</td> </tr> <tr> <td>N6</td> <td>1/4" NPT</td> <td></td> </tr> <tr> <td rowspan="2">CAP 1</td> <td>F3</td> <td>1/8" Flaretek</td> <td>1/8" NPT</td> </tr> <tr> <td>F9</td> <td>3/8" Flaretek</td> <td></td> </tr> <tr> <td></td> <td>P6</td> <td>1/4" Super Pillar</td> <td>1/8" Luer</td> </tr> <tr> <td></td> <td>CL</td> <td>CL</td> <td>NA</td> </tr> <tr> <td rowspan="2">CAP 2</td> <td>F9</td> <td>3/8" Flaretek</td> <td></td> </tr> <tr> <td>FE</td> <td>1.5" Ferrule</td> <td>1/4" Hose Barb</td> </tr> </tbody> </table> |                | TYPE         | CODE          | In/Out Connection | Vent / Drain |  | S6 | 1/4" Swagelok | 1/8" Swagelok | N6 | 1/4" NPT |  | CAP 1 | F3 | 1/8" Flaretek | 1/8" NPT | F9 | 3/8" Flaretek |  |  | P6 | 1/4" Super Pillar | 1/8" Luer |  | CL | CL | NA | CAP 2 | F9 | 3/8" Flaretek |  | FE | 1.5" Ferrule | 1/4" Hose Barb | X : NA<br>S : Silicone<br>E : EPDM<br>V : Viton<br>F : TEV | <table border="1"> <thead> <tr> <th>TYPE</th> <th>CODE</th> </tr> </thead> <tbody> <tr> <td>CAP 1</td> <td>1S : Standard</td> </tr> <tr> <td>CAP 2</td> <td>2S : Standard</td> </tr> </tbody> </table> | TYPE | CODE | CAP 1 | 1S : Standard | CAP 2 | 2S : Standard |
| TYPE  | CODE          | In/Out Connection  | Vent / Drain   |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
|   | S6            | 1/4" Swagelok  | 1/8" Swagelok  |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
|   | N6            | 1/4" NPT   |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| CAP 1   | F3            | 1/8" Flaretek  | 1/8" NPT       |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
|   | F9            | 3/8" Flaretek  |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
|   | P6            | 1/4" Super Pillar  | 1/8" Luer      |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
|   | CL            | CL   | NA             |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| CAP 2   | F9            | 3/8" Flaretek  |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
|   | FE            | 1.5" Ferrule   | 1/4" Hose Barb |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| TYPE  | CODE          |  |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| CAP 1   | 1S : Standard |  |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| CAP 2   | 2S : Standard |  |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| <b>MICRON RATING</b>                                    |               |  |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |
| P10 : 0.1µm<br>P20 : 0.2µm<br>P45 : 0.45µm<br>001 : 1µm |               |  |                |              |               |                   |              |  |    |               |               |    |          |  |       |    |               |          |    |               |  |  |    |                   |           |  |    |    |    |       |    |               |  |    |              |                |  |  |      |      |       |               |       |               |