

SurePore Bev Polyethersulfone Pleated Cartridge Filter

»» An Absolute Filter with Long Service Time and High Flow Rate



Specifications

»» Materials of Construction

Filter membrane	Polyethersulfone
Supports	Polypropylene
Cage/End Caps	Polypropylene
Core	Polypropylene/SS 316L
Adaptor	Polypropylene
O-rings	Please refer to the ordering info.

»» Operating Parameters

Maximum Operating Temperature	80 C
Maximum Differential Pressure (Forward)	5.2bar@25 C
Maximum Differential Pressure (Reverse)	2.1bar@25 C

»» Filter Dimensions

Outer Diameter	69.0mm
Inner Diameter	33.0mm
Filtration Area	≥0.65m ² /10inch

»» Safety

Bacterial Endotoxin	≤0.25EU/mL
Extractable	≤40mg/10inches

»» Sterilizable

Autoclave	124 C, 30min, 30cycles
	134 C, 20min, 30cycles
Steam In-Place	124 C, 30min, 30cycles
	134 C, 20min, 30cycles

Description

Asymmetric Polyethersulfone membrane has advantages on high-flux and high capacity. Due to reasonable structure, SurePore Bev PES makes full use of those advantages. SurePore Bev PES can provide better performance compared to similar products, while ensuring low cost.

»» Reliability

From raw materials purchase, transport and storage to production, all operations follow ISO 9001 quality management system. SurePore Bev PES manufactured, tested and packaged in a cleanroom to ensure product cleanliness. SurePore Bev PES cartridge filters are 100% integrity tested before they go out. A validation guide for compliance with regulatory requirements is available.

»» Compatibility

SurePore Bev PES cartridge filters are sealed using thermal bonding process, contain no adhesive and surfactant. The components of SurePore PES, include of Polyethersulfone, Polypropylene and Silicone/EPDM, provide broad chemical compatibility from pH 1 to pH14 and low extractable levels at high temperature.

»» Economy

The Optimized structure of cartridge filters can take full advantage of the excellent performance of asymmetric PES membrane. These features ensure the highest process efficiency and minimize filtration costs.

Suitable for Severe High Temperature Sterilizing

SurePore Bev PES can ensure integrity at temperature up to 134C and pressure drop up to 0.5bar due to the high strength of Polyethersulfone membrane and enhanced Polypropylene structure. SurePore Bev PES can provide excellent filtration service for your process.

For applications requiring autoclaving and sterilization, MS recommends the use of Code 5 adaptor to ensure filter sealing after cooling. Cartridges should be cooled to system operating temperature prior to use.

»» Regulatory Compliance

FDA 21 CFR 177
ISO 10993-Part 1, 5
EN 285:2015
Regulation (EC) No 1935/2004

Integrity Testing

»» Integrity Test Data

Pore Size	Bubble Point	Diffusion
0.10µm	≥4.0bar	≤18ml/min@3.2bar
0.20µm	≥3.3bar	≤18ml/min@2.6bar
0.45µm	≥1.8bar	≤18ml/min@1.4bar
0.65µm	≥1.2bar	≤18ml/min@1.0bar
0.80µm	≥1.0bar	≤18ml/min@0.9bar

Test filter cartridge length 10 inches

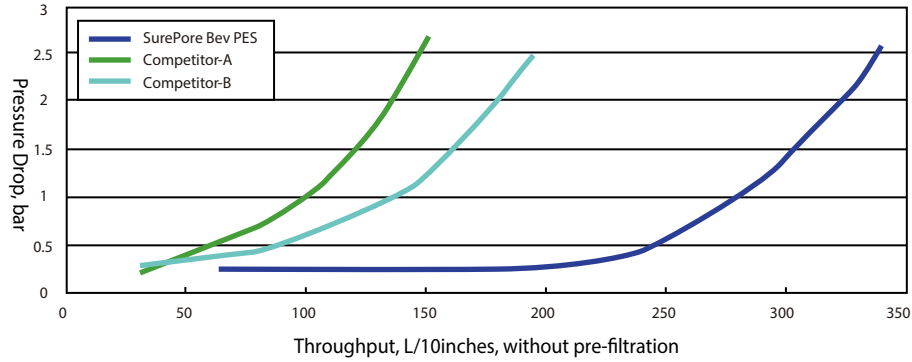
»» Integrity Testing Conditions

Wetting Liquid	Pure Water
Test Gas	Compressed Air
Test Ambient Temperature	25±2 C

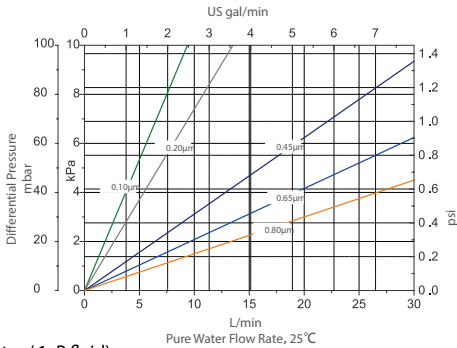
Making your filters work harder

Lower Costs and Longer Service Time

SurePore Bev PES cartridge filters are optimized to slow down the velocity of flow rate decline and increase the particle and colloid capacity on the membrane surface. SurePore PES can effectively reduce the operating costs of filtration system, the cost of replacement filters and downtime in many applications. The figure below shows the CHO serum-free media filtration throughput - pressure drop curves that include three PES cartridge filters 0.2µm - SurePore Bev PES and two competitors.



Typical Liquid Flow Rates



(Water / 1cP fluid)
 Typical flow rates. For liquids with viscosity differing from water, multiply the pressure drop by the viscosity in centipoise.
 Unit conversion: 1 bar = 100 kPa = 14.5 psi

Application

- Sterilization filtration of water for injection, cleaning solutions, purified water, deionized water, etc.
- Sterilization filtration of LVP, APIs, buffers, eye drops, disinfectants, etc.
- Sterilization filtration of vaccines, serums, biological products, antibiotic water-based liquid, etc.
- Filtration of red wine, beer, juice, purified water, etc.

Ordering Information¹

Filter Media	Length	Pore Size ²	Adaptor	Sealing	Core
CRPESB: Polyethersulfone membrane	005 = 5 inches	010 = 0.10µm	0=DOE	S=Silicone	Blank=PP
	010 = 10 inches	020 = 0.20µm	1=222/Flat with SS insert	E=EPDM	R=GF Reinforced PP
	020 = 20 inches	045 = 0.45µm	2=222/Flat	N=NBR	S=316L Stainless Steel
	030 = 30 inches	065 = 0.65µm	3=222/Fin	F=FKM	
	040 = 40 inches	080 = 0.80µm	4=222/Fin with SS insert		
			5=226/Fin with SS insert		
			6=226/Fin		
			7=226/Flat		
			8=226/Flat with SS insert		

1. This information is a guide to the part number structure and possible options. For applications requiring autoclaving and sterilization, MS recommends the use of adaptor with SS insert to ensure filter sealing after cooling, If products that require autoclaving and sterilization use EPDM sealing rings and require customization. For availability of specific options and housing details, please contact MS.

2. Double layer membrane non-standard combinations can be made according to customer needs.