SteriPure Polyethersulfone Pleated Cartridge Filter

A Burden Reduction 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.

Filter Dimensions

Outer Diameter	69.0mm
Inner Diameter	33.0mm
Filtration Area	≥0.65m²/10inch

Safety

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

Operating Parameters

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

Sterilizable

Autoclave	124℃,30min, 100cycles
	134℃,20min, 30cycles
Steam In-Place	124℃,30min, 100cycles
	134℃,20min, 30cycles

Regulatory Compliance

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

Description

SteriPure cartridge filters use a high porosity natural hydrophilic asymmetric polyethersulfone membrane and are used for reducing bio-burden and turbidity in a widely range of filtration processes. They provide an excellent service time and high initial flow rate for pre-filtration applications. They can well protect the critical final-filtration filters and improve the cost-effectiveness of filtration process.

Reliability

From raw materials purchase, transport and storage to production, all operations follow ISO 9001 quality management system. SteriPure manufactured, tested and packaged in a cleanroom to ensure product cleanliness. Each individual filter is integrity tested.

Compatibility

SteriPure cartridge filters are sealed using thermal bonding process, contain no adhesive and surfactant. The components of SteriPure, 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.

Integrity Testing

Integrity Test Data*

Pore Size	Bubble Point	Diffusion
0.02μm	≥3.2bar(IPA)	N/A
0.05μm	≥2.0bar(IPA)	N/A
0.10μm	≥4.0bar	≤35ml/min@3.2bar
0.20μm	≥3.0bar	≤35ml/min@2.4bar
0.45μm	≥1.8bar	≤35ml/min@1.4bar
0.65μm	≥1.2bar	≤35ml/min@0.9bar
0.80μm	≥1.0bar	≤35ml/min@0.8bar
1.00μm	≥1.0bar	≤35ml/min@0.8bar

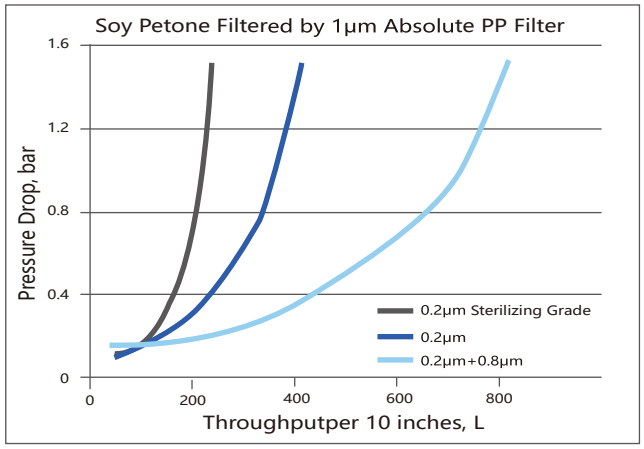
*Test filter cartridge length 10 inches

Integrity Testing Conditions

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

Lower Cost and Better Performance

Highly asymmetric hydrophilic polyethersulfone membrane provide higher initial flow rate and longer service time.



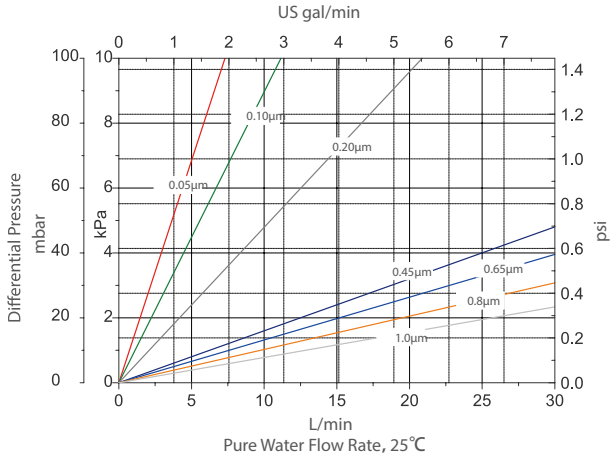
Features

- Strong chemical compatibility
- High flux, low protein binding
- 100% integrity test
- Long service life

Application

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

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

Ordering Information*

Filter Media	Length	Pore Size	Adaptor	Sealing	Core
CRPES: Polyethersulfone membrane	005 = 5 inches 010 = 10 inches 020 = 20 inches 030 = 30 inches 040 = 40 inches	002 = 0.02μm 005 = 0.05μm 010 = 0.10μm 020 = 0.20μm 045 = 0.45μm 065 = 0.65μm 080 = 0.80μm 100 = 1.00μm	0=DOE 1=222/Flat with SS insert 2=222/Flat 3=222/Fin 4=222/Fin with SS insert 5=226/Fin with SS insert 6=226/Fin 7=226/Flat 8=226/Flat with SS insert	S=Silicone E=EPDM N=NBR F=FKM	Blank=PP R=GF Reinforced PP S=316L Stainless Steel

* 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.

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