

SteriPure Polyethersulfone Pleated Filter Cartridge



» A Burden Reduction Filter with Long Service Time and High Flow Rate



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 pH 14 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.

» Regulatory Compliance

FDA 21 CFR 177
ISO 10993-Part 1, 5
USP Class VI-121 °C
Regulation (EC) No 1935/2004

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	68.0mm
Inner Diameter	33.0mm
Filtration Area	0.65m ² /10inch

» Safety

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

» Operating Parameters

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

» Sterilizable

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

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.

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

MS-TM-E-0014-EN A/1

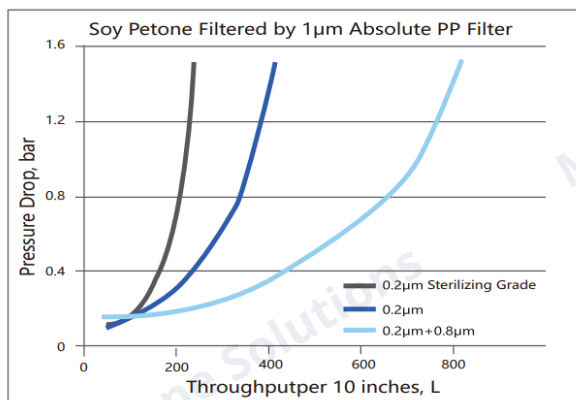
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» Integrity Testing Conditions

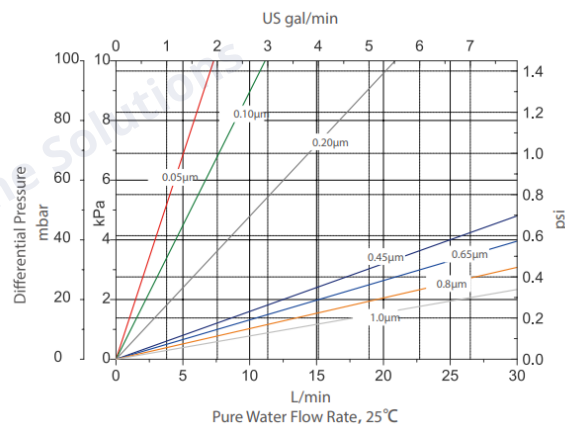
Wetting Liquid	Pure Water
Test Gas	Compressed Air
Test Ambient Temperature	25±2°C

Lower Cost and Better Performance

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



Typical Liquid Flow Rates



(Water / 1 cP 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	Removal Rating	Adaptor	Sealing	Core
CRPES: Polyethersulfone membrane	005 = 5 inch 010 = 10 inch 020 = 20 inch 030 = 30 inch 040 = 40 inch	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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