

# SteriPure-D Polyethersulfone Pleated Filter Cartridge



» An Absolute Filter with Higher Removal Efficiency



## Description

SteriPure-D series PES pleated filter cartridge is made of double-layer asymmetric PES membrane. The double-layer sterile-grade membrane provides a higher level of sterilization protection. It is suitable for harsh sterile terminal filtration.

### » Reliability

From raw materials purchase, transport to production and storage, all operations follow ISO 9001 quality management system. SteriPure-D manufactured, tested and packaged in a clean room to ensure product cleanliness. SteriPure-D cartridge filters are 100% integrity tested before they shipment. A validation guide for compliance with regulatory requirements is available.

### » Compatibility

SteriPure-D cartridge filters are sealed using thermal bonding process, contain no adhesive and surfactant. The components of SteriPure-D, include of Polyethersulfone, Polypropylene and Silicone/EPDM, provide broad chemical compatibility from pH 1 to pH 14 and low extractable levels at high temperature.

### » 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	Double layer 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	0.55m <sup>2</sup> /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, 30cycles
	134°C,20min, 30cycles
Steam In-Place	124°C,30min, 30cycles
	134°C,20min, 30cycles

## Features

- Strong chemical compatibility
- High flux, low protein binding
- Proven sterilizing-grade filter cartridge
- Higher protection ability of sterilization

## 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 redwine, beer, juice, purified water, etc.

## Suitable for Severe High Temperature Sterilizing

SteriPure-D can ensure integrity at temperature up to 134°C and pressure drop up to 0.5bar due to the high strength of Polyethersulfone membrane and enhanced Polypropylene structure. SteriPure-D 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.

## Integrity Testing

### » Integrity Test Data

Pore Size	Bubble Point	Diffusion
0.10µm+0.1µm	≥4.2bar	≤16ml/min@3.4bar
0.20µm+0.2µm	≥3.5bar	≤16ml/min@2.8bar
0.45µm+0.45µm	≥1.8bar	≤16ml/min@1.4bar

Test filter cartridge length 10 inches

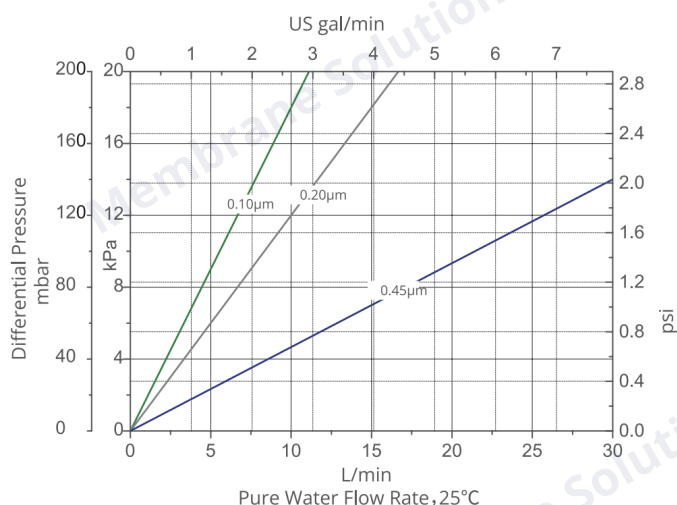
### » Integrity Testing Conditions

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

## Flow Rate-Pressure Drop

SteriPure-D have higher flow rate with the design of configuration. Follows are the water flow rate-pressure drop curves.

### » DI Water Flow Rate-Pressure Drop Curve



(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
CRPESD: Polyethersulfone membrane	005 = 5inch 010 = 10inch 020 = 20inch 030 = 30inch 040 = 40inch	010=0.10µm+0.10µm 020=0.20µm+0.20µm 045=0.45µm+0.45µm	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 F = FPM/FKM N = NBR	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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