

# FluorPure-SG PTFE Pleated Cartridge Filter

Offer Ultimate in Microorganism Retention for Gas Streams and Chemicals while Providing Long Service Life



## Description

FluorPure-SG using nature hydrophobic and high carrying amount PTFE membrane, along with reasonable configuration which make full use of the advantages of membrane, result to have long service life and long steam accumulated time. FluorPure SG can be optimized for applications requiring sterilization for air, gas or aggressive solvents and chemicals.

## Reliability

From raw materials purchase, transport to production and storage, all operations follow ISO 9001 quality management system. FluorPure-SG are manufactured, tested and packaged in a cleanroom to ensure products cleanliness, and provide absolute retention based on liquid bacteria challenge. FluorPure-SG filters are 100% integrity tested prior to shipment, and provide validation guide available for compliance with regulatory requirements.

## Compatibility

FluorPure-SG cartridge filters are sealed using thermal bonding process, with no adhesive and surfactant. The components of FluorPure-SG filters have broad chemical compatibility, can be used to filter the most of gases and chemicals and have very low precipitation.

## Regulatory Compliance

ASTM D6394 SP0112  
 FDA 21 CFR 177.1655  
 ISO 10993-Part 1, 5  
 EN 285:2006+A2:2009.  
 Regulation (EC) No 1935/2004

## Specifications

### Materials of Construction

Filter membrane	Hydrophobic Polytetrafluoroethylene
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	1.9bar@82 C
Maximum Differential Pressure (forward)	5.2bar@25 C
Maximum Differential Pressure (reverse)	2.1bar@25 C
Recommended Replacement Pressure	2.4bar

### Filter Dimensions

Outer Diameter	69mm
Inner Diameter	33.0mm
Filtration Area	≥0.74M <sup>2</sup> /10inch

### Safety

Bacterial Endotoxin	≤0.25EU/mL
Extractable	≤15mg/10inch

### Sterilizable

Autoclave	126 C, 60min, 100cycles
	140 C, 60min, 30cycles
Steam In-Place	126 C, 60min, 100cycles pressure drop ≤0.3bar
	140 C, 60min, 40cycles pressure drop ≤0.3bar

## Suitable for Severe High Temperature Sterilizing

FluorPure-SG can ensure integrity at temperature up to 140 °C and pressure drop up to 0.3bar due to enhanced core and adapter structure. FluorPure-SG 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 Test Data\*

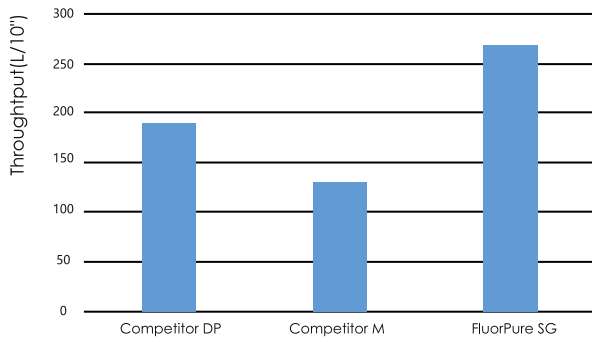
Pore Size	Min, Bubble Point, 25 °C	Max, Diffusion, 25 °C
0.05µm	≥2.4bar	≤55mL/min@1.9bar
0.1µm	≥1.6bar	≤30mL/min@1.4bar
0.2µm	≥1.0bar	≤20mL/min@0.8bar
0.45µm	≥0.5bar	≤20mL/min@0.4bar

\*Tested by 60%(v:v) IPA

### Longer service Time and Lower Cost

FluorPure-SG filters using high velocity and high carrying amount PTFE membrane, can effectively delay filter blocking rate, prolong the service life. In filtration process, FluorPure-SG can effectively reduce the total cost of filtering system, and the cost of purchasing replacement. Following is the contrast figure of service life among FluorPure-SG 0.22 µm and the similar products.

» The Contrast Figure of Flow Rate



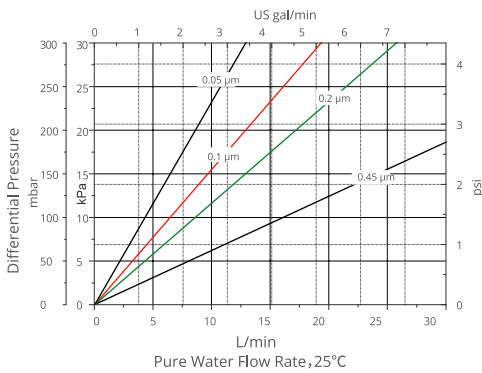
Application

- Sterilization filtration of compressed air/nitrogen
- Sterilization of fermentation tank, batching tank and breathing filter
- Filtration of aseptic packaging air
- Sterilization filtration of solvents/disinfectants

Flow Rate-Pressure Drop

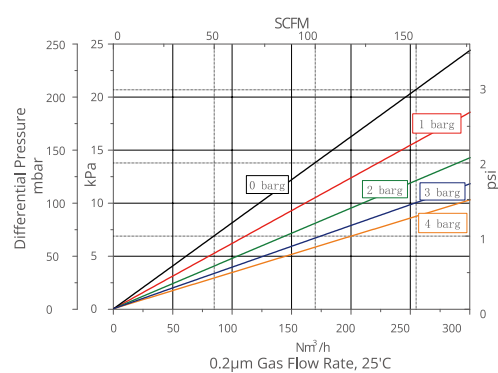
FluoPure-SG have higher flow rate with the design of configuration. Follows are the gas flow rate and water flow rate-pressure drop curves.

» 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

» Air Flow Rate-Pressure Drop Curve/0.22um



10" cartridge filter, 20 °C, with housing losses subtracted.  
 1 bar, 2 bar, 3 bar for the inlet pressure.  
 For gases other than air and for multi-round cartridge installations, please contact MS for proper sizing.

Order Information\*

Filter Media	Length	Pore Size	Adaptor	Sealing	Core
CRPTFEG: Hydrophobic Polytetrafluoroethylene membrane	005 = 5 inches 010 = 10 inches 020 = 20 inches 030 = 30 inches 040 = 40 inches	005 = 0.05µm 010 = 0.1µm 020 = 0.2µm 045 = 0.45µm	0=DOE 1=222/Flat with 316L SS insert 2=222/Flat 3=222/Fin 4=222/Fin with 316L SS insert 5=226/Fin with 316L SS insert 6=226/Fin 7=226/Flat 8=226/Flat with 316L SS insert	S = Silicone E = EPDM F = FPM/FKM N = NBR PV=FEP Encapsulated FPM/FKM PS=FEP Encapsulated Silicone	Blank=PP R=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 Code 5 adaptor to ensure filter sealing after cooling. For availability of specific options and housing details, please contact MS.



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