

PureFlo® PES Mini Filter Cartridges

PureFlo® PES mini filter cartridges are highly-retentive hydrophilic PES membrane filters that have been specially designed for critical applications. The PES membrane in an all-polypropylene construction provides excellent chemical compatibility and superior flow per unit area as compared to other membrane cartridges. No adhesives, binders or surfactants are used in the manufacturing process. All cartridges are rinsed with highpurity water to reduce extractables and downtime.

The hydrophilic PES membrane does not require prewetting with IPA and flushing with DI water, thereby eliminating a potential source of contamination and hazardous waste. In addition, unlike hydrophobic filters such as PTFE, hydrophilic membrane reduces the potential for bubble formation by not dewetting in outgassing fluids. All filter cartridges are 100% integrity tested to ensure filter performance each and every time out of the package. PureFlo PES mini filter cartridges are well-suited for critical applications where superior flow and particle removal efficiency at 0.04, 0.1, 0.2, 0.45, 0.65, 0.80 and 1.2 micron is required.

Applications	
Acids	Ink Jets
Bases	Beverages
Solvents	Pharmaceuticals
Fine Chemicals	Biologics
Plating Solutions	Dyes
Process Water	Lacquers

Regulatory Compliance

Manufactured from materials that conform to the requirements of 21CFR Part 177 of the U.S. Code of Federal Regulations and USP Class VI Biological Test for Plastics

Retrofits Code 2230, 4463, 4440 & SLK



Materials of Construction

Membrane: Hydrophilic Polyethersulfone
Membrane Supports: Polypropylene
Cage, Core, End Caps: Polypropylene
O-Rings: Silicone, EPDM, Fluoroelastomer, Buna N

Dimensions (nominal)

Lengths: 1.5in (38mm), 2.5 in (75 mm), 5 in. (135 mm)
Diameter: 2.2 in. (56 mm)

Effective Filtration Area

0.78 ft² (720 cm²) per 1.5" cartridge
1.5 ft² (1380 cm²) per 2.5" cartridge
2.8 ft² (2600 cm²) per 5.0" cartridge

Operating Conditions

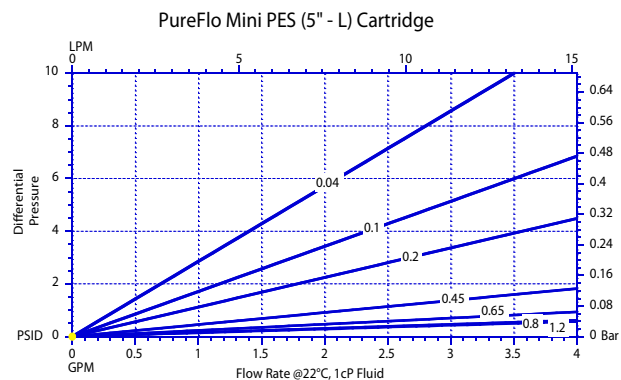
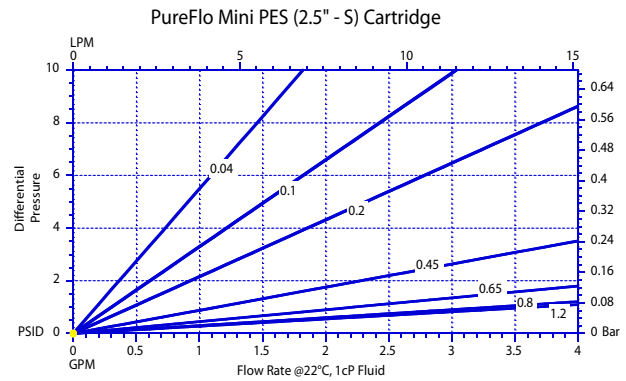
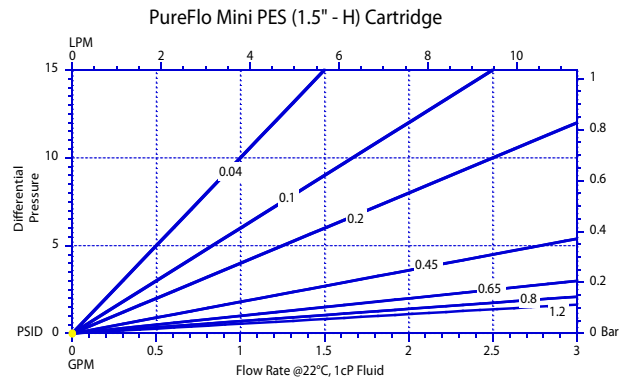
Maximum Forward Differential Pressure:
4.1 bar (60 psid) at 68°F/20°C
2.0 bar (29 psid) at 176°F/80°C
Maximum Reverse Differential Pressure:
2.0 bar (29 psid) at 68°F/20°C
1.0 bar (14.5 psid) at 176°F/80°C
Maximum Operating Temperature: 176°F/80°C

Sterilization & Autoclaving

The filters can be sterilized by autoclaving for up to 25 cycles at 257°F/125°C. The filters can also be sterilized by steam-in-place procedure up to 10 cycles at 275°F/135°C for 30 minutes at less than 0.3 bar differential pressure. The filters can also be sanitized by hot water or common chemicals that are compatible with filter components.

Features	Benefits
Hydrophilic PES Membrane	IPA pre -wetting not required- thereby eliminating a potential source of contamination and disposal waste Reduces downtime and improves throughput Economic alternative to PTFE filters No dewetting in outgassing fluids, unlike hydrophobic filters such as PTFE
Wide Chemical & Thermal Compatibility	Provides excellent compatibility with a widerange of chemicals
Low Filter Extractables	No adhesives, binders, or surfactants are used during manufacturing resulting in superior downstream cleanliness All cartridges are rinsed with high-purity water

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Flange End Modification

PureFlo PES Filter Cartridge Ordering Guide

PureFlo Mini PES Filter Cartridges	Removal Rating	End Modifications	Length	O-Ring / Gasket Materials	Package Qty	Grade
MMS = Mini PES Cartridge	004 = 0.04 micron 010 = 0.10 micron 020 = 0.20 micron 050 = 0.45 micron 065 = 0.65 micron 080 = 0.8 micron 120 = 1.2 micron	A = 116 Inner O-Ring C = 015 O-Ring D = 1/2" MNPT E = 118 O-Rings F = Flange* N = 116 Inner Housing Seal M = 123 O-Rings with hold down tabs** S = 116 Inner O-Ring with locking groove	H = 1.5" S = 2.5" L = 5"	E = EPDM N = Buna N S = Silicone V = Fluoro-elastomer O = O-ringless Seal	2P = 2pc/ pack (5") 3P = 3pc/ pack (1.5" and 2.5")	Blank = Standard - PH = Pharm grade
						Option - 5 = SS Insert
Example - A 3 pack of 2.5", 0.1 micron filters with 2-116 EPDM o-ring would be MMS010ASE3P						
* - F end modification is compatible to fit in a PALL Seal-K housing, ** - M end modification is compatible to fit in a Millipore OptiSeal™ Housing						