

PureFlo® PTFE Cartridges

PureFlo® PTFE Cartridges are highly retentive hydrophobic PTFE membrane filters that have been specially designed for critical applications. The PTFE 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 and all cartridges are rinsed with high-purity water to reduce extractables and downtime.

The naturally hydrophobic PTFE membrane is ideally suited for gas filtration and aggressive chemicals such as acids, bases, and solvents. In addition, the hydrophobic membrane provides superior flow and pressure drop characteristics per unit area for gas filtration and tank venting applications. All filter cartridges are 100% integrity tested to ensure filter performance each and every time out of the package. PureFlo® PTFE Cartridges are well-suited for critical applications where superior flow and particle removal efficiency at 0.1 and 0.2 micron is required.



Materials of Construction

Membrane: Hydrophobic PTFE
 Membrane Supports: Polypropylene
 Cage, Core, End Caps: Polypropylene
 O-Rings: Silicone, EPDM, Viton, Buna N, TES, and TEV

Dimensions (nominal)

Lengths: 5 in. (13 cm), 10 in. (25 cm), 20 in. (51 cm), 30 in. (76 cm), 40 in. (102 cm)
 Diameter: 2.75 in. (70 mm)

Effective Filtration Area

0.65 m² (7.0 ft²) per 10" cartridge element

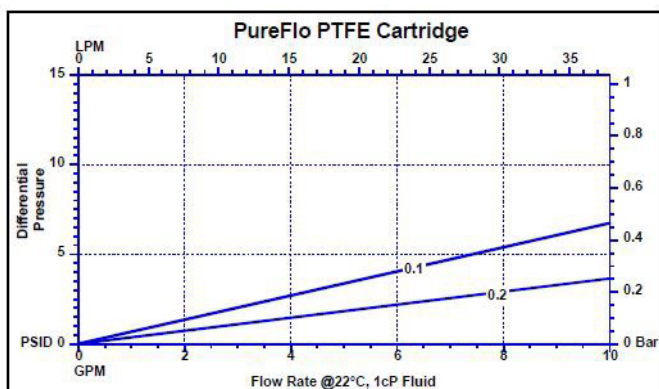
Operating Conditions

Maximum Forward Differential Pressure:
 6.0 bar (87 psid) at 22 °C
 2.0 bar (29 psid) at 80 °C
 Maximum Reverse Differential Pressure:
 3.0 bar (43.5 psid) at 22 °C
 1.0 bar (14.5 psid) at 80 °C
 Maximum Operating Temperature: 80 °C

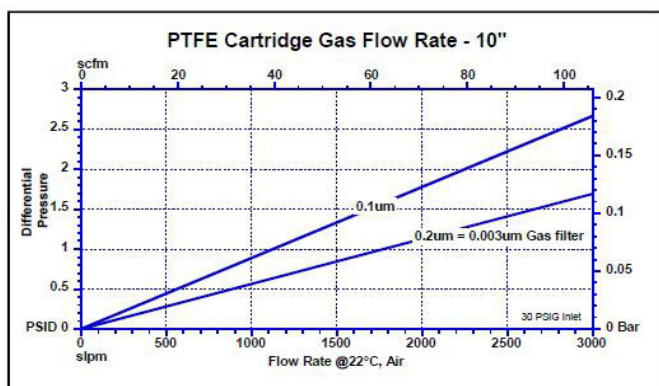
Applications	
Acids Ink	Jets
Bases Electronics	
Solvents Pharmaceuticals	
Fine Chemicals	Biologics
Plating Solutions	Dyes
Parts Cleaning	Lacquers

Features	Benefits
■ Hydrophobic PTFE Membrane (Absolute Rated)	■ Consistent and reproducible particulate removal ■ High flow rates and low pressure drops ■ Superior filter lifetime and process throughputs
■ Wide Chemical & Thermal Compatibility	■ Provides excellent compatibility with a wide range of chemicals such as acids, bases, and solvents ■ No media migration into the process fluid
■ Low Levels of Filter Extractables	■ No adhesives, binders, or surfactants are used during the manufacturing process resulting in superior downstream cleanliness ■ All cartridges are rinsed with high-purity water to reduce downtime

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Liquid



Gas

Specifications (cont.)

Regulatory Compliance

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

Bacterial Retention

Complete retention of $\geq 10^7$ organisms/cm² of *Brevundimonas diminuta* in accordance with the current HIMA challenge methodology (ASTM F838-83). Validation Guide available upon request.

Sterilization & Autoclaving

The filters can be sterilized by autoclaving for up to 50 cycles at 125 °C (257 °F) for 30 minutes. The filters can also be sterilized by steam-in-place procedure up to 50 cycles at 135 °C (275 °F) for 30 minutes at less than 0.3 bar (4.35 psi) differential pressure. The filters can also be sanitized by hot water or common chemicals that are compatible with filter components.

Bio-Safety

Filter effluent is non-pyrogenic per USP bacterial endotoxin (<0.25 EU/ml)

PureFlo PTFE Cartridge Ordering Guide

PureFlo PTFE Filter Cartridges	Removal Rating	End Modifications	Length	O-Ring / Gasket Materials	Package Qty	Inserts
MCF = Hydrophobic PTFE W/ PP Construction	10 - 0.10 micron	0 = 222 O-Ring Flat	1 - 10"	E = EPDM	1 = 1pc/ pack	Blank = Standard -5 = Stainless Steel Insert
	20 - 0.20 micron	3 = 222 O-Ring w/tabs Spear	2 - 20"	N = Buna N		
	(0.003um for gas)	5 = 222 O-Ring Spear	3 - 30"	P = Peroxide Cured EPDM		
	45 - 0.45 micron	6 = 226 O-Ring Flat	4 - 40"	Q = Platinum Cured Silicon		
	1X - 1.0 micron	7 = 226 O-Ring Spear	5 = 5"	S = Silicone		
	3X - 3.0 micron	8 = 223 O-Ring w/tabs Flat	9 = 9.75"	T = TEV or FEP Gasket		
	5X - 5.0 micron	B = 1.5" Tri-Clamp Flat		U = TES*		
	9X - 10 micron	F = DOE Flat Gasket		V = Fluoroelastomer		
		S = SOE Flat Gasket		O = No O-ring		
		Z = SOE Internal O-ring Flat **				
Example - PureFlo PTFE Cartridge, 10", 1.0 micron cartridge, with 2-222 Silicone o-ring, Flat end cap, and no insert would be MCF1X01S1						
* - not available in Code Z ** - only available in 5", 9.75", 10" and 20", retrofit for DOE housings						