

Advantage™ PS Filter Cartridges

■ Polyethersulfone Membrane

General Grade Membrane Series

High Flow Rate Capability With Polyethersulfone Membrane Filter Cartridges

The General Grade polyethersulfone membrane cartridges are specifically designed to provide superior flow rates at an economical cost. The unique construction features a high-surface area design that allows for excellent flow rates and high particle removal efficiency. Hydrophilic polyethersulfone membrane cartridges require no prewetting and are ready to use. All materials of construction are the same as used in the electronics grade Mega Pure series polyethersulfone cartridges from Parker. This assures a cost effective device while maintaining excellent performance in UPW pad applications and other recirculation applications.

The General Grade is also ideal for final filtration of water and aqueous solutions in plating, chemical process, photographic, food and beverage and bulk pharmaceutical applications.

The General Grade Polyethersulfone Membrane Series is available in 0.03µm, 0.1µm, 0.2µm, 0.45µm and 0.65µm pore sizes.

Applications

UHP Chemical

- Specialty Chemicals
- Bulk Photoresists and Solvents

UHP Water

- Central PAD
- Polishing Stations

Food & Beverage

- Bottled Water
- Wine
- Beer
- Process Water
- Vinegar
- Edible Oils
- Aseptic Packaged Liquids

Miscellaneous

- Pre, Post and Point-Of-Use DI Water Filtration
- Pharmaceutical Intermediates
- Plating Solutions
- Bulk Chemicals



Features and Benefits

Superior Polyethersulfone Membrane Yields Maximum Filtration Results

- High surface area design provides excellent flow rates and extended filter life while maintaining high particle removal efficiency.
- Spunbonded polypropylene support materials eliminate sites for potential shedding and increased particle counts.
- Provides broad chemical compatibility.
- Excellent resistance to most sanitizing agents.

Parker's TQM System Assures Consistent Performance and Reliable Filtration

- Thermally welded, eliminating adhesive extractables.
- Biosafe in accordance with USP Class VI-121° Plastics Tests.
- Specifically designed to ensure cleanliness.
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.

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Specifications

Materials of Construction:

- Membrane: hydrophilic polyethersulfone
- Membrane Support/Drainage: polypropylene
- Structural components: polypropylene
- O-Ring Material: various
- Sealing Method: thermal welding

Dimensions:

- Diameter: 2.7 in (6.8 cm)
- Lengths: 10-40 in (25-102 cm)

Surface Area (10 in cartridge):

- Minimum 6.5 ft² (0.6 m²)

Recommended Operating Conditions:

- Maximum Temperature: 176°F (80°C) @ 30 ΔP (2.1 bar)
- Maximum Differential Pressure:
 - Forward:
 - 70 psi (4.8 bar) @ 77°F (25°C)
 - 30 psi (2.1 bar) @ 176°F (80°C)
 - Reverse:
 - 50 psi (3.4 bar) @ 77°F (25°C)

Endotoxins:

- <0.25 eu/ml

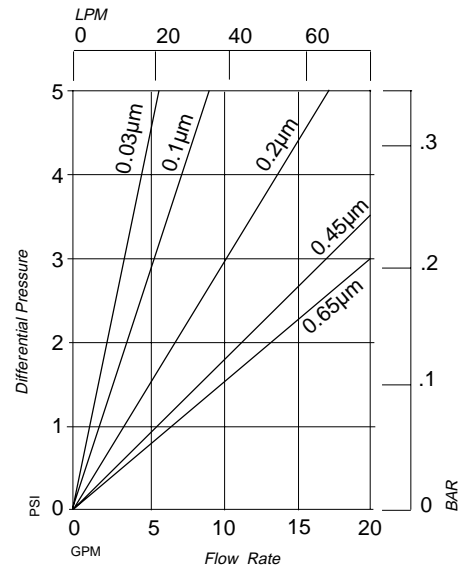
Sterilization/Sanitization Methods:

- Isopropyl Alcohol
- Sodium Hydroxide
- Hydrogen Peroxide
- Hot Water: 190°F (88°C) @ 5 psid (0.3 bar)
- Autoclave: 250°F (121°C) for 30 minutes at 15 psi (1.0 bar)
- In Situ Steam: 284°F (140°C) for 60 minutes at 15 psi (1.0 bar)
- Chlorine
- Sodium Hypochlorite
- Sanitizing Agents (see Materials Selection Guide, Bulletin C-770)

Installation Rinse-In:

- Cartridges typically rinse to back ground resistivity in less than five minutes at 2 gpm/10" equivalent

Polyethersulfone Cartridges:
Flow rate vs. ΔP for a 1 cps liquid @ 73°F (23°C)**



Flow Factors:

Pore Size (μm)	GPM/ 1 PSID	LPM/ 1 Bar	PSID/ 1 GPM	Bar/ 1 LPM
0.03	1.2	66	0.85	0.015
0.1	1.8	99	0.56	0.010
0.2	3.5	192	0.29	0.005
0.45	5.5	301	0.18	0.003
0.65	6.5	356	0.15	0.003

Ordering Information

PS	T	B	10	E	TC	G
Cartridge Code	Pore Size (μm)	Diameter (in)	Length (in)	O-Ring Material	End Cap Configuration	Grade
PS = Polyethersulfone	T = 0.03 S = 0.1 F = 0.2 R = 0.45 H = 0.65	B = 2.7	10 = 10 20 = 20 30 = 30 40 = 40	B = Buna-N E = EPDM S = Silicone T = PFA/Viton* V = Viton* X = No O-Ring	SC = 2-226/Flat SF = 2-226/Fin TC = 2-222/Flat TF = 2-222/Fin HH = DOE (Gaskets) AC = 020/Flat (Gelman) PP = 119/119 (Ametek and Parker LT Polymeric Housings)	G = General

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** Consult Process Filtration Division for gas flow data.

Parker Hannifin Corporation

Process Filtration Division
P.O. Box 1300
Lebanon, Indiana 46052
Toll Free 1-888-C-FULFLO or 1-888-238-5356
Telephone (765) 482-3900
Fax (765) 482-8410
<http://www.parker.com>

