

# MPGG Filter Cartridges

■ Polyethersulfone Membrane

**Mem-Pure Membrane Series**

## High Flow Rate Capability With Polyethersulfone Membrane Filter Cartridges

The flexible 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 Mem-Pure series polyethersulfone cartridges from Clark-Reliance Filtration Group. 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.

#### Clark-Reliance Filtration Group Assures Consistent Performance and Reliable Filtration

- Thermally welded, eliminating adhesive extractables.
- Biosafe in accordance with USP Class VI-121°C 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.



**WARNING! FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.**  
This document and other information from Clark-Reliance Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection for the products and systems and assuring that all performance, safety and warning requirements of the application are met.

## Mem-Pure Membrane Series

### Specifications

#### Materials of Construction:

- Membrane: hydrophilic polyethersulfone
- Membrane Support/Drainage: polypropylene
- Structural Components: polypropylene
- Seal 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 ft<sup>2</sup> (0.6 m<sup>2</sup>)

#### Recommended Operating Conditions:

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

#### Endotoxins:

- < 0.25 eu/ml

#### Sterilization/Sanitization Methods:

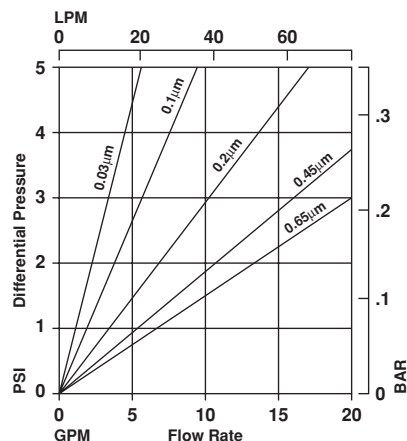
- Isopropyl Alcohol
- Sodium Hydroxide
- Hydrogen Peroxide
- Hot Water: 190°F (88°C) @ 5 psid (0.3 bar)
- Autoclave: 250°F (121°C) for 30 minutes at 15 psi (1.0 bar)
- In Situ Steam: 284°F (140°C) for 60 minutes at 15 psi (1.0 bar)
- Chlorine
- Sodium Hypochlorite
- Sanitizing Agents (see Materials Selection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

MPGG	F	B	10	E	TC	G
Cartridge Code	Pore Size	Diameter	Length	Seal Material	End Cap Configuration	Grade
MPGG = Polyethersulfone	T = 0.03µm S = 0.1µm F = 0.2µm R = 0.45µm H = 0.65µm	B = 2.7"	10 = 10" 20 = 20" 30 = 30" 40 = 40"	B = Buna-N E = EPR S = Silicone T = PFA/Viton V = Viton X = No O-Ring	HH = DOE gaskets SC = 226/Flat SF = 226/Fin TC = 222/Flat TF = 222/Fin	G = General

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\*\* Consult factory for gas flow data.