

Memtrex* PM

pleated filters with polypropylene membrane

Water Technologies & Solutions fact sheet



Figure 1: Memtrex PM (MPM) Pleated Filters

description and use

Memtrex PM (MPM) filters' 100% polypropylene construction offers low extractables, long service life, and broad chemical compatibility (Figure 1). Thermoplastic sealing techniques are used in the cartridge construction eliminating the need for glues or sealers which could leach contaminants. MPM filters are integrity testable. All components are made of FDA-acceptable materials and meet the test criteria for the USP24 Class VI 121 °C plastics.

MPM filters utilize high flow polypropylene membranes, capable of protecting your gas, air, and liquid processes with absolute ratings of 0.1 and 0.2 micron. SUEZ is your complete source for filters, crossflow membranes, housings, and other filtration equipment.

typical applications

Memtrex PM filters are specifically designed for pure chemical filtration.

Typical applications include:

- Vent and Process Air
- Etchants, Photoresists and Developers
- Solvents, Acids and Bases
- Ultrapure Chemicals

general properties

Memtrex PM filters are available the following absolute pore size micron ratings: 0.1 and 0.2 µm. Tables 1, 2, 3, 4, 5, and 6 show further details on materials of construction, dimensions, operational limits, integrity testing, and flow performance in air and water.

Table 1: Materials of Construction

| | |
|----------------------|--------------------------|
| Filtration Media | Polypropylene Membrane |
| Support Layers | Polypropylene Microfiber |
| Core and Cage | Polypropylene |
| Endcaps and Adapters | Polypropylene |

Table 2: Dimensions

| Nominal O.D | Nominal I.D. | Effective Filtration Area |
|--------------|--------------|--|
| 2.75" (70mm) | 1.25" (31mm) | 7.2 ft ² (0.67 m ²) |

Table 3: Operational Limits

| | |
|---------------------------------------|---|
| Maximum Forward Differential Pressure | 60 psi (4.1 bar) @ 70°F (21°C) |
| Maximum Reverse Differential Pressure | 30 psi (2.1 bar) @ 70°F (21°C) |
| Maximum Operating Temperature | 140°F (60°C) @ 10 psid (0.7 bar) in water |

Table 4: Integrity Testing

| Pore Size Rating | Specification |
|---|---------------------------------|
| 0.1 µm | ≤ 5 cc/min @ 40 psig (2.76 bar) |
| 0.2 µm | ≤ 5 cc/min @ 30 psig (2.07 bar) |
| Air diffusion per 10" module after saturation with clean 100% IPA | |

Table 5: Flow Performance in Clean Air¹

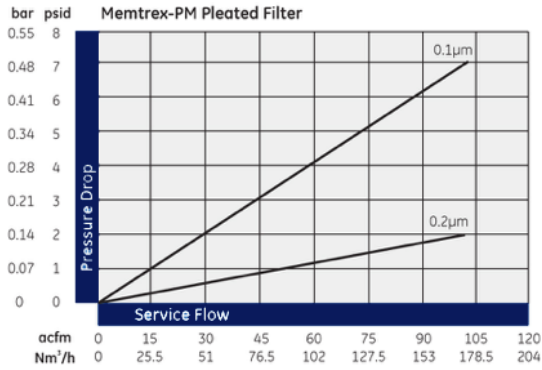
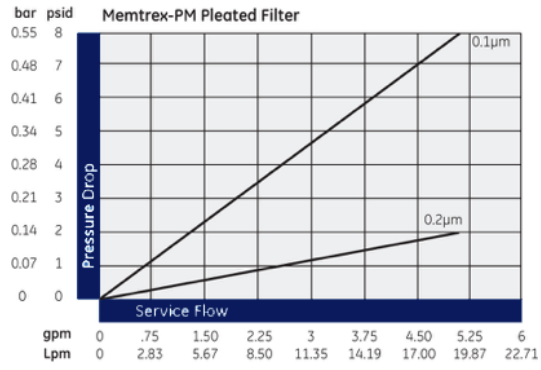


Table 6: Flow Performance in Clean Water¹



¹ Data based on 10" length filter

Table 7: Ordering Information

| Type | Micron Rating | Nominal Cartridge Length | End #1 Adapter | End #2 Adapter | Elastomer Material |
|------|---------------|--------------------------|---|---------------------|---|
| MPM | 91 = 0.1 µm | 1 = 10 in. (25.4 cm) | A = Open End Gasket | A = Open End Gasket | B = Buna-N |
| | 92 = 0.2 µm | 2 = 20 in. (50.8 cm) | B = 120 O-Ring | B = 120 O-Ring | E = EPDM |
| | | 3 = 30 in. (76 cm) | C = 213 O-Ring | C = 213 O-Ring | S = Silicone |
| | | 4 = 40 in. (101.5 cm) | E = 222 O-Ring | G = Closed End Cap | T = Teflon ² |
| | | | F = 226 O-Ring | H = Fin Adapter | Encapsulated (Only in 222 and 226 Sizes) |
| | | | J = 020 O-Ring | | V = Viton ² |
| | | | Q = 222 O-Ring Stainless Steel Insert | | |
| | | | Z = 226 O-Ring Stainless Steel Insert | | |

²Teflon and Viton are registered trademarks of Dupont

additional information

- Memtrex PM filters may be autoclaved or in situ steam sterilized (up to 253°F [123°C], 30 minute cycles) for a maximum accumulated exposure of 10 hours. Alternatively, the filters may be sanitized with compatible chemical agents.
- GE certifies that the materials contained in its Memtrex PM pleated filters meet U.S. FDA requirements for food contact under the applicable regulations in 21 CFR. For further information, contact the SUEZ technical services. Memtrex PM filters meet the test criteria for USP class VI-121°C Plastics.

- Aqueous extracts from Memtrex PM filters contain less than 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues. SUEZ filter cartridges are designed and manufactured for resistance to a wide range of chemical solutions. Conditions will vary with each application and users should carefully verify chemical compatibility. Please contact your SUEZ distributor for more information.
- Table 7 provides more information on ordering Memtrex PM filters.

