Water Technologies & Solutions
fact sheet

Memtrex* MP-E

pleated filters with Polyethersulfone membrane

figure 1 : Memtrex MP-E (MMP-E) filters

description and use

Memtrex MP-E (MMP-E) filters (Figure 1) incorporate a modified asymmetric Polyethersulfone membrane with polypropylene supports and hardware for enhanced service life and cleanliness in UPDI water and other microelectronics applications.

The Electronics (E) Grade Memtrex-MP-E filters are manufactured utilizing a high-purity rinse on each and every filter to reduce TOC and trace metals below 5.0 ppb. This is ideal for final filtration on DI water pads and POU applications. These filters are also 100% integrity-tested to ensure reliable particle retention.

The MMP-E filter is just one example of our strong commitment to the electronics industry. Our complete portfolio includes filters for every stage of processing, and we offer custom solutions for your unique applications. SUEZ Water Technologies & Solutions is your complete source for filters, crossflow membranes, housings and other filtration equipment.

typical applications

Memtrex-MP-E filters are specifically designed for the filtration of ultrapure semiconductor water. Typical applications include:

- UPDI Water Pad
- High Purity Chemicals
- Point of Use Applications

general properties

Memtrex MP-E filters are available the following absolute pore size micron ratings: 0.03, 0.1 and 0.2 µm. Tables 1, 2, 3, 4 and 5 show further details on materials of construction, dimensions, operational limits, integrity testing and flow performance.

table 1: materials of construction

Media	Hydrophilic Polyethersulfone 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)	8.1 ft² (0.75 m²)

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	180°F (82°C) at 10 psid (0.7 bar) in water

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table 4: integrity testing

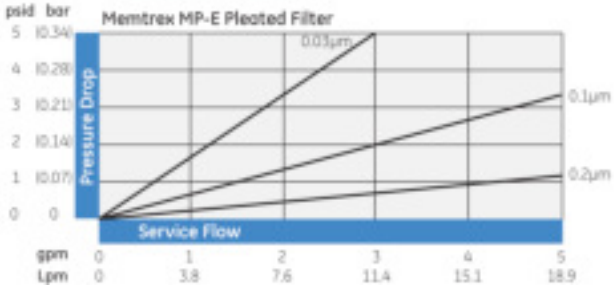
Pore Size Rating	Specification
0.03 µm	≤ 45 cc/min at 50 psig (3.45 bar)
0.1 µm	≤ 45 cc/min at 50 psig (3.45 bar)
0.2 µm	≤ 19 cc/min at 30 psig (2.1 bar)

Air diffusion per 10" module after saturation with clean water

additional information

- Memtrex-MP-E filters with polypropylene components may be autoclaved (121°C, 30 minute cycles) or in situ steam sterilized (125°C, 30 minute cycles) for a maximum accumulated exposure of 10 hours. Memtrex-MP-E filters with polyethylene hardware must not be autoclaved or in situ steam sterilized. Alternatively, the filters may be sanitized with compatible chemical agents.
- The component materials of Memtrex-MP-E filters are suitable for use in articles intended for repeated food contact as specified in the United States Code of Federal Regulations, Title 21. Memtrex-MP-E filters meet the test criteria for USP24 class VI-121°C Plastics and pass the MEM Elution Cytotoxicity Test.
- Aqueous extracts from Memtrex-MP-E filters contain less than 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues. The filters rinse to less than 5 ppb TOC and less than 5 ppb trace metals in 25 min at 2.5 gpm per 10" module in UPDI water.
- Table 6 provides more information on ordering Memtrex MP-E filters

table 5: flow performance in clean water[1]



[1]Data based on 10" length filter

table 6: ordering information[2]

Type	Absolute Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material	Grade
MMP	83 = 0.03 µm 91 = 0.1 µm 92 = 0.2 µm	1 = 10 inch (25 cm) 2 = 20 inch (51 cm) 3 = 30 inch (76 cm) 4 = 40 inch (102 cm)	A = Open End Gasket B = 120 O-Ring C = 213 O-Ring E = 222 O-Ring F = 226 O-Ring J = 020 O-Ring Q = 222 O-Ring Stainless Steel Insert Z = 226 O-Ring Stainless Steel Insert	A = Open End Gasket B = 120 O-Ring C = 213 O-Ring G = Closed End Cap H = Fin Adapter	B = Buna-N E = EPDM S = Silicone T = Teflon® Encapsulated Viton (Only in 222 and 226 Sizes) V = Viton®	E = Electronic

[2]Teflon and Viton are registered trademarks of Dupont.