

# MP-E Pleated Filters



**Memtrex-MP-E (MMP-E)**  
electronics grade filters  
utilize high purity modified  
polyethersulfone membrane  
(PES) for today's demanding  
microelectronic applications.

## Features and Benefits

Memtrex-MP-E (MMP-E) filters incorporate a modified asymmetric Polyethersulfone membrane with polyethylene 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. Osmonics is your complete source for filters, crossflow membranes, housings and other filtration equipment.

## 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

## Available Absolute Pore Size Ratings

- 0.03 and 0.1  $\mu\text{m}$

## Materials of Construction

- Media.....Hydrophilic Polyethersulfone
- Support Layers.....Polypropylene microfiber (polyethylene optional)
- Core and Cage.....Polypropylene (polyethylene optional)
- Endcaps and Adapters.....Polypropylene (polyethylene optional)

## Dimensions

Nominal O.D.	Nominal I.D.	Effective Filtration Area
2.75" (70 mm)	1.25" (31 mm)	6.9 ft <sup>2</sup> (0.64 m <sup>2</sup> )

## Integrity Testing

Air diffusion per 10" module after saturation with clean water

Pore size rate	Specification
0.03 mm	≤ 20cc/min at 50 psig (3.45 bar)
0.1 mm	≤ 30cc/min at 50 psig (3.45 bar)

## Operational Limits

- Maximum Forward Differential Pressure .....60 psi (4.14 bar)
- Maximum Reverse Differential Pressure .....30 psi (2.07 bar)
- Maximum Operating Temperature.....180°F (82°C) at 10 psid (0.69 bar) in water
- Maximum Operating Temperature.....160°F (71°C) at 10 psid (0.69 bar) in water

## Sterilization

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.

## Biosafety

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.

## Extractables

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.

## Ordering Information

Type	Absolute Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material	Grade
MMP	83 = 0.03mm 91 = 0.1mm	1 = 10 Inch 2 = 20 Inch 3 = 30 Inch 4 = 40 Inch	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 (Only in 222 and 226 Sizes) V = Viton*	-E = Electronic Polypropylene Structure -EP = Electronic Polypropylene Structure

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### For More Information:

Call Osmonics Filtration and Separation Group at (952) 933-2277 or (800) 848-1750, or visit [www.osmonics.com](http://www.osmonics.com)



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## Flow Performance in Clean Air

