

Memtrex* KM

FACT SHEET

Pleated filters with hydrophilic nylon 66 membrane



Figure 1: Memtrex KM Filters

Description and Use

Memtrex KM (MKM) filters (Figure 1) are uniquely constructed for superior performance with Veolia's Nylon 66 membrane. MKM filters utilize all polypropylene construction to assure chemical compatibility and applicability to the widest range of applications.

MKM filters are designed to ensure maximum downstream cleanliness. Veolia Nylon 66 membranes are naturally hydrophilic, non-shedding and do not contain leachable wetting agents. Thermoplastic sealing technologies are used in the cartridge construction, eliminating the need for potentially contaminating adhesives. Each cartridge is manufactured under strict production control and is individually integrity tested. Veolia is your complete source for filters, crossflow membranes, housings and other filtration equipment.

Typical Applications

MKM filters have excellent chemical compatibility making them the ideal choice for a broad range of applications such as high purity water, strong solvents, photoresists and other critical process fluid systems. Typical applications include:

- Microelectronics ultrapure water filtration
- Filtration of positive photoresists
- Filtration of organic solvents

General Properties

Memtrex KM filters are available the following absolute pore size micron ratings: 0.2, 0.45 and 0.65 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

| Description | Material of Construction |
|----------------------|--------------------------|
| Media | Nylon 66 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" (70 mm) | 1.25" (31 mm) | 8.0 ft ² (0.74 m ²) |

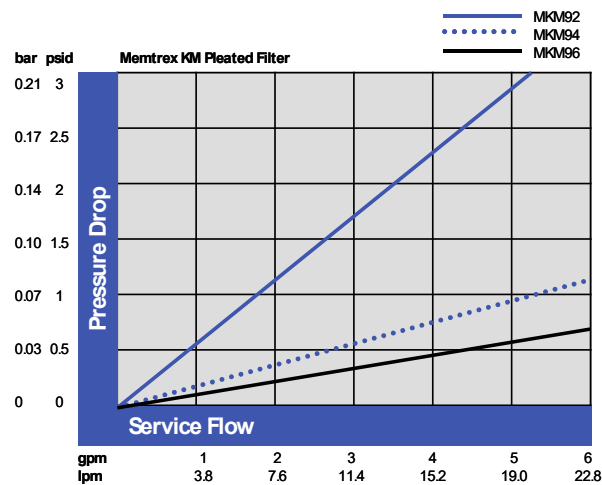
Table 3: Operational Limits

| Description | Operational Limits |
|---------------------------------------|--|
| Maximum Forward Differential Pressure | 60 psi (4.1 bar) at 70°F (21°C) |
| Maximum Reverse Differential Pressure | 30 psi (2.1 bar) at 70°F (21°C) |
| Maximum Operating Temperature | 180°F (82°C) at 10 psid (0.7 bar) in water |

Table 4: Integrity Testing

| Micron Rating | Specification |
|---------------|-----------------------------------|
| 0.2 µm | ≤ 50 cc/min at 30 psig (2.07 bar) |
| 0.45 µm | ≤ 50 cc/min at 15 psig (1.03 bar) |

Table 5: Flow Performance in Clean Water¹



¹Data based on 10" length filter

Table 6: Ordering Information

| Type | Micron Rating | Nominal Cartridge Length | End #1 Adapter | End #2 Adapter | Elastomer Material |
|------|---|---|---|--|--|
| MKM | 92 = 0.2 µm 94 = 0.45 µm 96 = 0.65 µm | 1 = 10 in. (25.4 cm) 2 = 20 in. (50.8 cm) 3 = 30 in. (76 cm) 4 = 40 in. (101.5 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 ² Encapsulated (Only in 222 and 226 Sizes) V = Viton ² |

²Teflon and Viton (registered trademarks of The Chemours Company.)

Additional Information

- Memtrex KM filters may be autoclaved or in situ steam sterilized (up to 257°F [125°C], 30-minute cycles) for a maximum accumulated exposure of 10 hours. Alternately, the filters may be sanitized with compatible chemical agents.
- Veolia certifies that the material contained in its Memtrex KM pleated filters meet U.S. FDA requirements for food contact under the applicable regulations in 21 CFR. For further information, contact Veolia technical services. Memtrex MKM filters meet the test criteria for USP class VI-121°C Plastics.
- Aqueous extracts from Memtrex KM filters contain less than 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues.
- Veolia 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 Veolia distributor for more information.
- Table 6 provides additional ordering information.