

## Water Technologies & Solutions fact sheet

# Memtrex KM

## 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 SUEZ'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. SUEZ 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. SUEZ 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  $\mu$ m. 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 <sup>2</sup> (0.74 m <sup>2</sup> )

**Table 3: Operational Limits**

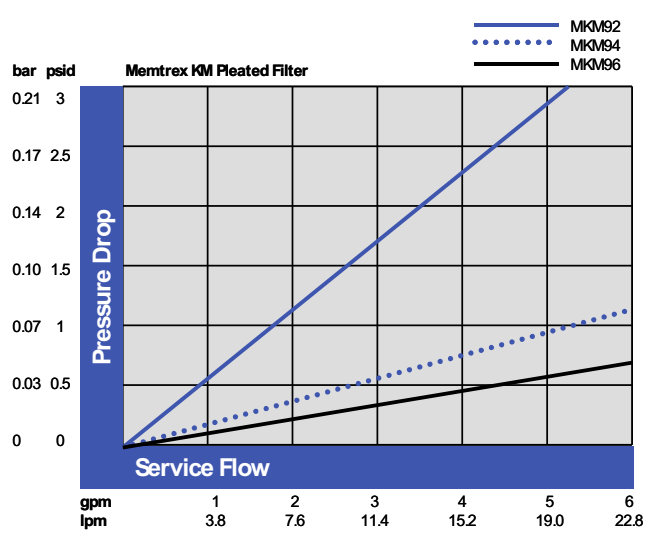
Description	Operational Limits
Maximum Forward Differential Pressure	60 psi (4.1 bar) at 70°F (21°C)
Maximum Reverse Differential Pressure	30 psi (2.1 bar) at 70°F (21°C)

Maximum Operating Temperature	180°F [82°C] at 10 psid (0.7 bar) in water
-------------------------------	--

### additional information

**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)



- 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.
- SUEZ 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 SUEZ 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.
- 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 6 provides additional ordering information.

**Table 5: Flow Performance in Clean Water<sup>1</sup>**

<sup>1</sup> Data 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	1 = 10 in. (25.4 cm)	A = Open End Gasket	A = Open End Gasket	B = Buna-N
	94 = 0.45 µm	2 = 20 in. (50.8 cm)	B = 120 O-Ring	B = 120 O-Ring	E = EPDM
	96 = 0.65 µm	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 <sup>2</sup> Encapsulated (Only in 222 and 226 Sizes)
			F = 226 O-Ring	H = Fin Adapter	V = Viton <sup>2</sup>
			J = 020 O-Ring		
			Q = 222 O-Ring Stainless Steel Insert		
			Z = 226 O-Ring Stainless Steel Insert		

<sup>2</sup>Teflon and Viton are registered trademarks of DuPont.



info@lenntech.com Tel. +31-152-610-900

www.lenntech.com Fax. +31-152-616-289