

# Water Technologies & Solutions

## fact sheet

# Memtrex\* HFE - Halar PTFE

## all fluoropolymer pleated cartridge

### features and benefits



Figure 1: Memtrex HFE filter

Memtrex\* HFE are made entirely from fluoropolymer materials including Halar (ECTFE). Halar is a trademark of Ausimont.), and PTFE. Halar is an industrial-grade fluoropolymer with excellent solvent resistance. MHFE benefits of the edge lamination technology assuring a lower pressure drop and increasing flow rate. MHFE filters can withstand the harshest process conditions due to its construction using these highly resistant materials. Providing broad chemical compatibility, you can count on our filters to produce consistent, uniform process streams in your most demanding filtration applications. MHFE deliver high flow rates and high purity results with absolute rated efficiencies (99.9% filtration efficiency at rated pore size based on ASTM F795 and F661 test methods) and retention characteristics that outperform other filters.

The MHFE filter is just one example of our strong commitment to fluid treatment. Our complete portfolio includes filters for every stage of processing, and we offer custom solutions for your unique applications. SUEZ is your complete source for filters, crossflow membranes, housings, and other filtration equipment.

## typical applications

MHFE all fluoropolymer filters offer outstanding performance in extremely harsh chemical environments. MHFE filters are manufactured and packaged in a cleanroom environment for assured cleanliness. Typical applications include:

- Chemicals
- Microelectronics
- Pharmaceuticals

## general properties

Memtrex HFE filters are available the following absolute pore size micron ratings: 0.05, 0.1, 0.2, 0.45, and 1  $\mu$ m. Tables 1, 2, 3, and 4 show further details on materials of construction, dimensions, operational limits, and flow performance in water.

Table 1: Materials of Construction

Core and cage	Halar (ECTFE)
Support layer	Halar (ECTFE)
Membrane	ePTFE
End caps	Halar (ECTFE)

Find a contact near you by visiting <a href="www.suezwatertechnologies.com">www.suezwatertechnologies.com</a> and clicking on "Contact Us." \*Trademark of SUEZ; may be registered in one or more countries.

Table 2: Dimensions

Filter model	Nominal O.D.	Nominal I.D.
MHFE85	2.75" (70mm)	1.25" (31mm)
MHFE91	2.75" (70mm)	1.25" (31mm)
MHFE92	2.75" (70mm)	1.25" (31mm)
MHFE94	2.75" (70mm)	1.25" (31mm)
MHFE01	2.75" (70mm)	1.25" (31mm)

## integrity testing

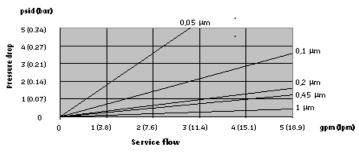
•	0.05 µm	$\leq$ 5 cc / min at 40 psig (2.76 bar)
•	0.1 µm	$\leq$ 5 cc / min at 40 psig (2.76 bar)
•	0.2 µm	$\leq 5$ cc / min at 30 psig (2.07 bar)
•	$0.45~\mu m$	$\leq$ 5 cc / min at 20 psig (1.38 bar)
•	1 μm	$\leq$ 5 cc / min at 15 psig (1.38 bar)

#### Table 3: Operational Limits

Maximum forward	60 psi (4.14 bar) at 70°F (21.1°C)
differential pressure	30 psi (2.07 bar) at 70°F (21.1 C)
Maximum reverse differential pressure	205°F (96.1°C) at 25 psid (1.7 bar)
Maximum operating	
temperature	

#### Table 4: Flow Performance in CleanWater<sup>1</sup>

Data based on 10" length filter



### additional information

- Memtrex HFE filters may be sanitized with compatible chemical agents. The filters must not be autoclaved or steam sterilized.
- SUEZ certifies that the material contained in its Memtrex HFE 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 HFE filters meet the test criteria for USP class VI-121°C Plastics.
- Aqueous extracts from Memtrex HFE 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 5 provides additional ordering information.

Table 5: Ordering Information

Туре	Absolute Micron Rating	Nominal cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer material	Product Grade
MHFE	85 = 0.05 μm 91 = 0.1 μm 92 = 0.2 μm 94 = 0.45 μm	1 = 10 in [25 cm] 2 = 20 in [51 cm] 3 = 30 in [76 cm] 4 = 40 in [102 cm]	A = Open End Gasket E = 222 O-Ring F = 226 O-Ring	A = Open End Gasket E = Closed End Cap H = Fin Adapter	T = Teflon <sup>2</sup> Encapsulated Viton <sup>2</sup>	E = Electronic grade rinse Pre Wet = Rinsed and packed wet

<sup>&</sup>lt;sup>2</sup>Teflon and Viton are a registered trademark of DuPont.



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