

# Water Technologies & Solutions fact sheet

# **Memtrex\* PM capsules**

# with hydrophobic polypropylene membrane



Figure 1: Memtrex PM Capsule Filters

#### description and use

Memtrex PM Capsule Filters (CMPM) have a broad chemical compatibility. Constructed with high purity polypropylene membranes, hardware, and supports, they are ideal for the filtration of aggressive gases, liquids, and solutions from a wide variety of chemical, and engineering processes.

# typical applications

Memtrex PM Capsule Filters are specifically designed for pure chemical filtration, including:

- Filtration of etchants, photoresists, and developers
- Filtration of solvents, acids, and bases
- Filtration of fine chemicals
- Vent/process air filtration

#### features and benefits

 High flow, highly hydrophobic polypropylene membrane

Find a contact near you by visiting <u>www.suezwatertechnologies.com</u> and clicking on "Contact Us." \*Trademark of SUEZ; may be registered in one or more countries. ©2017 SUEZ. All rights reserved.

FS1103EN.docx Jan-09

- Ideal for vent filtration
- Low extractables, high throughput, long service life
- 100% polypropylene construction
- Individually integrity tested during manufacturing

## available absolute micron ratings

Memtrex PM Capsule Filters are available in absolute micron ratings of 0.1 and 0.2  $\mu m.$ 

## materials of construction

- Filtration Media: Hydrophobic Polypropylene Membrane
- Membrane Support Layers: Polypropylene Microfiber
- Structural Components: Polypropylene

Table 1 details the dimensions and Table 2 shows the operational limits of the Memtrex PM Capsule Filters. Table 3 details the results of integrity testing at various micron ratings and test pressures.

#### **Table 1: Dimensions**

Diameter:	3.5" (9 cm)		
Capsule Size	Effective Filtration	Area Length <sup>1</sup>	
Small	0.8 ft <sup>2</sup> (748 cm <sup>2</sup> )	3.5 - 5.0" (9 - 13 cm)	
Medium	3.0 ft <sup>2</sup> (2806 cm <sup>2</sup> )	0.0 ft <sup>2</sup> (2806 cm <sup>2</sup> ) 7.6 - 9.1" (19 - 23 cm)	
Large	5.9 (5500 cm <sup>2</sup> )	11.5 - 13.0" (29 - 33 cm)	

<sup>1</sup>Varies with connection style

#### **Table 2: Operational Limits**

Maximum Operational Pressure	80 psi (5.5 bar) @ 70°F (21°C) in Liquid, 55 psi (3.8 bar) @ 70°F (21°C) in Gas
Maximum Differential Pressure	60 psi (4.1 bar) @ 70°F (21°C)
Maximum Operating Temperature	110°F (43°C) at ≤30 psi (2.1 bar) Operating Pressure

#### **Table 3: Integrity Testing**

Water intrusion is $\leq$ 1.8 cc/min per $ft^2$ of Effective Filtration Area				
Micron Rating	Test Pressure			
0.1 µm	40 psi (2.8 bar)			
0.2 µm	30 psi (2.1 bar)			

# additional information

Memtrex PM Capsule filters may be sanitized with a variety of commonly used chemical agents. The capsules may be repeatedly autoclaved (250°F [121°C], 30 minutes) for up to 5 cycles.

SUEZ certifies that the materials contained in its Memtrex PM Capsule filters meet U.S. FDA requirements for food contact under the applicable regulations in 21 CFR. For further information, contact SUEZ. Memtrex PM filters meet the test criteria for USP class VI-121°C Plastics.

Figures 2, 3 and 4 show the test data results of flow performance for the small, medium, and large Memtrex FE Capsule Filters using a 10-inch length filter.

SUEZ filter capsules 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.

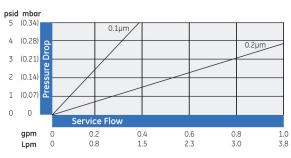


Figure 2: Memtrex PM small capsule flow rate performance in clean water.<sup>2</sup>

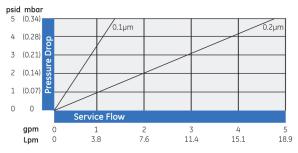


Figure 3: Memtrex PM medium capsule flow rate performance in clean water.<sup>2</sup>

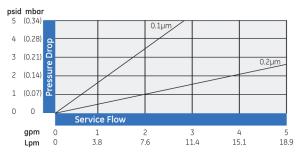


Figure 4: Memtrex PM large capsule flow rate performance in clean water.<sup>2</sup>

<sup>2</sup>Data based on 10 inch length filter

Туре	Absolute Micron Rating	Capsule Size	Connections <sup>3</sup>
СМРМ	91 = 0.1 μm 92 = 0.2 μm	08 = small (0.8 ft²) 30 = medium (3.0 ft²) 59 = large (5.9 ft²)	L = 1/4" - 1/2" (6.3 - 12.7 mm) hose barb M = 3/8" (9.5 mm) hose barb R = 1/4" (6.3 mm) NPT male W = 1/2" (12.7 mm) NPT male Y = 1.5" (38.1 mm) sanitary flange

<sup>3</sup>Choose an inlet and outlet connection

**Table 4: Ordering Information** 

# for more information

Call USA Toll free 800-446-8004 or +1-757-855-9000 or contact your local SUEZ representative at www.suezwatertechnologies.com.

#### FS1103EN.docx