



EPS Mini-Capsule Filters

Single Layer PES Membrane



EPS Mini-Capsule filters are constructed with a single layer Polyethersulfone (PES) membrane. They are designed for the electronics industry and used for removing fine and ultrafine particles from aqueous liquids. Pore sizes range from 0.02 to 0.45 μm and the filter devices scale from laboratory to full production using identical materials to ensure consistent results.

These hydrophilic filters have low extractables for fast rinse-up to conductivity limits and fast rinse-down to TOC limits. EPS Mini-Capsule filters deliver high flow and throughput with chemical compatibility across a wide pH range. They are commonly utilized in the final filtration of liquids for point of use tools.

EPS filters are pulse power flushed until the rinse effluent reaches 18+ Megohm-cm and less than 3ppb TOC. Each filter is individually tested to ensure integrity

Critical Process provides unrivaled delivery times, technical consulting before purchasing, and very competitively priced high-performance products. Our comprehensive testing & analysis and validation services support your team whenever they need it. Your process experts partnering with our filtration experts is how we deliver your company's solution right the first time.

Fine Particle Removal

Clarification & Prefiltration

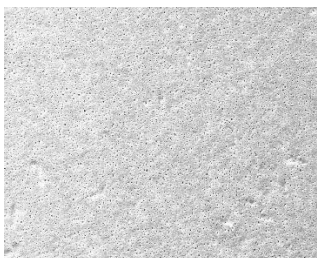


MINI-CAPSULES – Nominal Dimensions

Body Length: 2.85 in. (7.2 cm)

Overall Length – 3.75 to 5.19 in. (9.5 to 13.2 cm)

Outside Diameter: 2.95 in. (7.5 cm)



EPS Mini-Capsules are recommended for:

- UPDI Water
- Acids & Bases
- Etch Baths
- Solvents
- Bulk Chemicals
- Plating Solutions

Maximum Operating Parameters

MINI-CAPSULES	
Liquid Operational Pressure	80 psi at 68 °F (5.52 bard at 20 °C)
Gases Operational Pressure	60 psi at 68 °F (4.14 bar at 20 °C)
Operating Temperature (water)	110 °F at 30 psid (43 °C at 2.07 bard)
Forward Differential Pressure	50 psid at 68 °F (3.45 bard at 20 °C)
Reverse Differential Pressure	40 psid at 68 °F (2.76 bard at 20 °C)
Recommended Changeout Pressure	35 psid (2.41 bard)

Sanitization & Sterilization*

Autoclave	250 °F (121 °C), 30 min, 5+ cycles
Chemical Sanitization	Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.

Integrity Testing

PORE SIZE	BUBBLE POINT MINIMUM*	
	PSIG	BARG
µm		
0.02	**	**
0.03	**	**
0.10	**	**
0.22	50	3.5
0.45	25	1.7

* For water wetted membrane

** Test pressure exceeds operational limits of mini-capsule filters.

Filtration Area

Single Layer	
Area	0.50 ft ²
	468 cm ²

Construction Materials

Filtration Media	Symmetric PES membrane
Media Support	Polypropylene
End Caps, Center Core, Outer Support Cage, Mini-Capsule Housing	Polypropylene
Sealing Method	Thermal Bonding

Extractables

EPS Mini-Capsule filters typically exhibit low levels of non-volatile residues and conform with USP <661>/<665>.

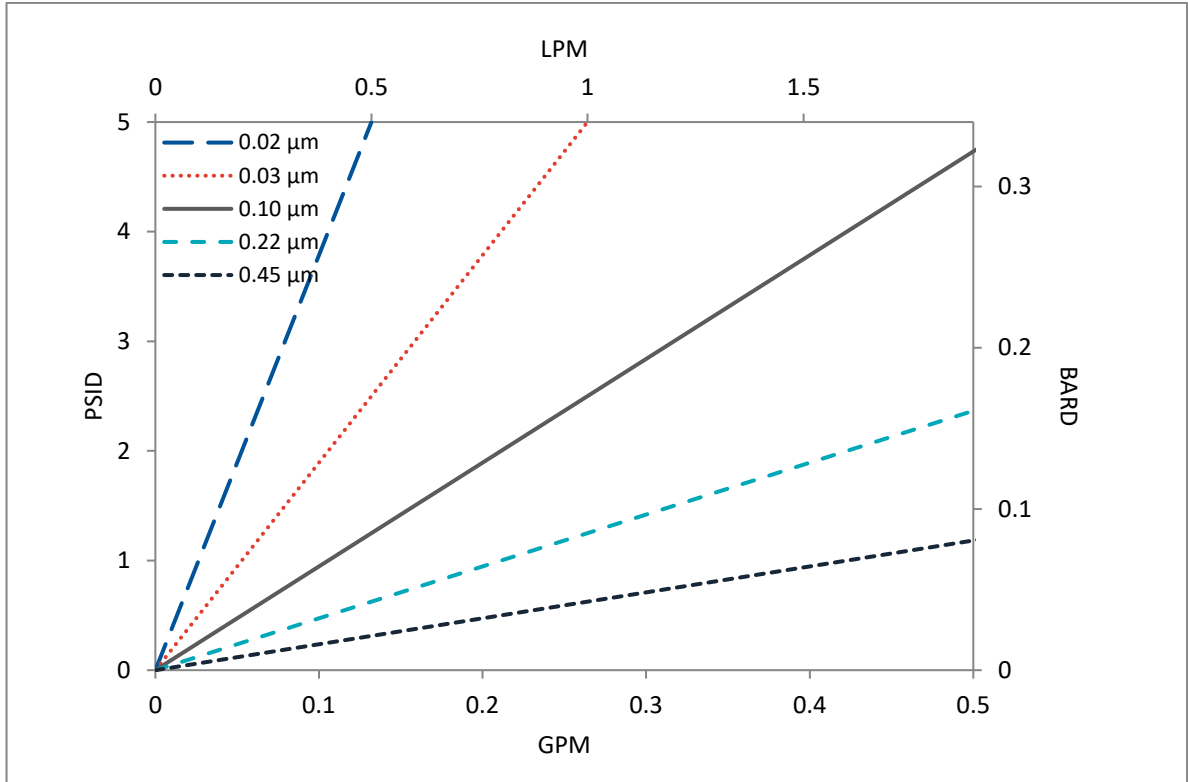
TOC and Conductivity

EPS Mini-Capsule filter water effluent conforms with the TOC and water conductivity standards of SEMI Standard F104 (modified) and F63 after an appropriate flush with ultrapure water.

Non-Fiber Releasing

The EPS Mini-Capsule filters comply with Title 21 CFR sections 211.72 and 210.3 (b)(6), for non-fiber releasing filters.

Flow Rates for EPS Mini-Capsules by Pore Size



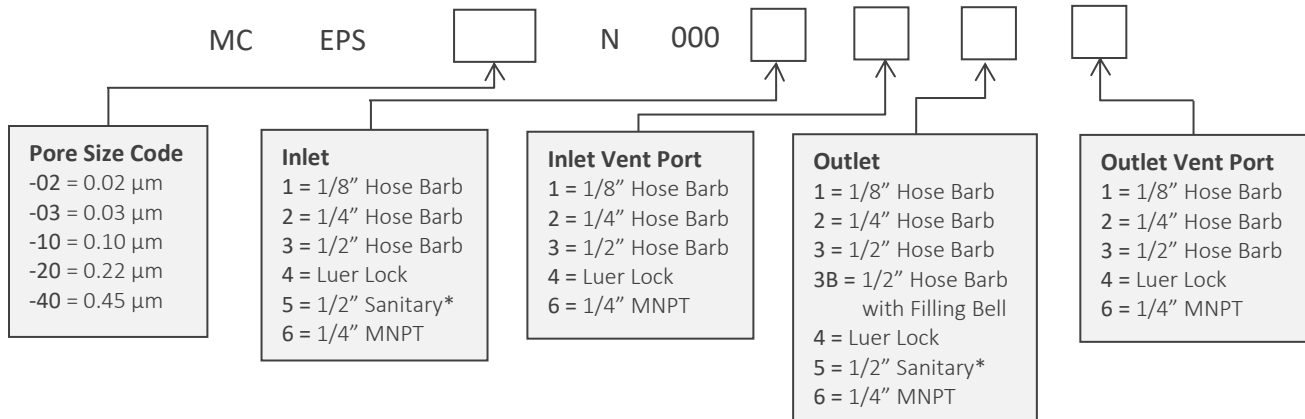
Flow rates for Mini-Capsule filters are per filter. The test fluid is water at ambient temperature. Flows are tested using a mini-capsule filter with ½" Sanitary inlet and outlet ports. Rates will vary based on end configuration of the mini-capsule.

EPS Mini-Capsule Filters Ordering Information

All Critical Process filters are configurable to meet customer specifications.
Fill in the corresponding codes in the boxes below to build your Part Number.

To consult with one of our technical team members, request a quote or place an order:
call (603) 880-4420 Ext. 106, or send an email to sales@criticalprocess.com

Mini-Capsule Filters



*When choosing the Sanitary Inlet/Outlet, the Luer Lock option is required for the Vent Port



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