

# EPD Mini-Capsule Filters

*Pleated Polypropylene Depth Media*



Wide range of high efficiency retention ratings

High capacity for long life

Prefiltration of water, acids, bases, resists, plating solutions, solvents

## Applications

- ◆ UP DI Water
- ◆ Acids & Bases
- ◆ Solvents & Alcohols
- ◆ Photo Resists
- ◆ Plating Solutions
- ◆ Etch Baths
- ◆ Process Water

EPD mini-capsules are made with polypropylene microfiber media and other polypropylene components. All materials were chosen for their high purity and broad chemical compatibility. Designed with optimal filtration area, the media can remove large amounts of particulate and other contaminants over a long filter life. EPD mini-capsules protect critical membrane filters downstream by removing 99.9% of contaminants at the rated pore size.

EPD mini-capsule filter applications include low to moderate temperature prefiltration of acids and bases, prefiltration of solvents, alcohols, plating solutions, photo resists and other fluids at the point-of-use.

## EPD Mini-Capsule Filters - Dimensions\*

Diameter	Length	Filtration Area*
75 mm (2.95")	Body Length = 2.85" (72.4mm) Overall Length = 3.75" to 5.19" (Varies with Choice of Inlet/Outlet)	500 cm <sup>2</sup> (0.5 ft <sup>2</sup> ) (nominal)

\*Average – Filtration area varies with media thickness and porosity.

## Flow Rates

The following table represents typical water flow at a one psi (69 mbar) pressure differential through a mini-capsule filter with 500 cm<sup>2</sup> (0.54 ft<sup>2</sup>) of media and 1/4" hose barb inlet and outlet ports. The test fluid is water at ambient temperature. Higher pressure drops are acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Pore Size	0.10 μm	0.22 μm	0.45 μm	0.65 μm	1 μm	3 μm	5 μm	10 μm	20 μm	30 μm	40 μm	60 μm	100 μm
<b>GPM</b>	0.04	0.13	0.21	0.26	0.32	0.37	0.42	0.48	0.53	0.58	0.63	1.00	1.03
<b>LPM</b>	0.15	0.50	0.80	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	3.8	3.9

## Construction Materials

<b>Housing</b>	Polypropylene
<b>Filtration Media</b>	Pleated Polypropylene Depth Media
<b>Media Support</b>	Polypropylene
<b>End Caps</b>	Polypropylene
<b>Center Core</b>	Polypropylene
<b>Outer Support Cage</b>	Polypropylene
<b>Sealing Method</b>	Thermal Bonding

## Maximum Operating Parameters

<b>Liquid Operational Pressure</b>	80 psi (5.5 bar) at 20 °C (68 °F)
<b>Gases Operational Pressure</b>	60 psi (4.1 bar) at 20 °C (68 °F)
<b>Operating Temperature</b>	43 °C (110 °F) at 30 psi (2.1 bar) in water
<b>Forward Differential Pressure</b>	50 psid (3.4 bard) at 20 °C (68 °F)
<b>Reverse Differential Pressure</b>	40 psid (2.7 bard) at 20 °C (68 °F)
<b>Recommended Changeout Pressure</b>	35 psid (2.4 bard)

## Integrity Test Information

Representative sample EPD mini-capsule elements are factory tested for integrity before shipment. Field duplication of these tests is not practical because of the absence of commercial portable testing equipment.

## Sanitization/Sterilization

**Autoclave** ..... 250° F (121° C), 30 min, 5+ cycles

**Chemical Sanitization** ..... Industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals.

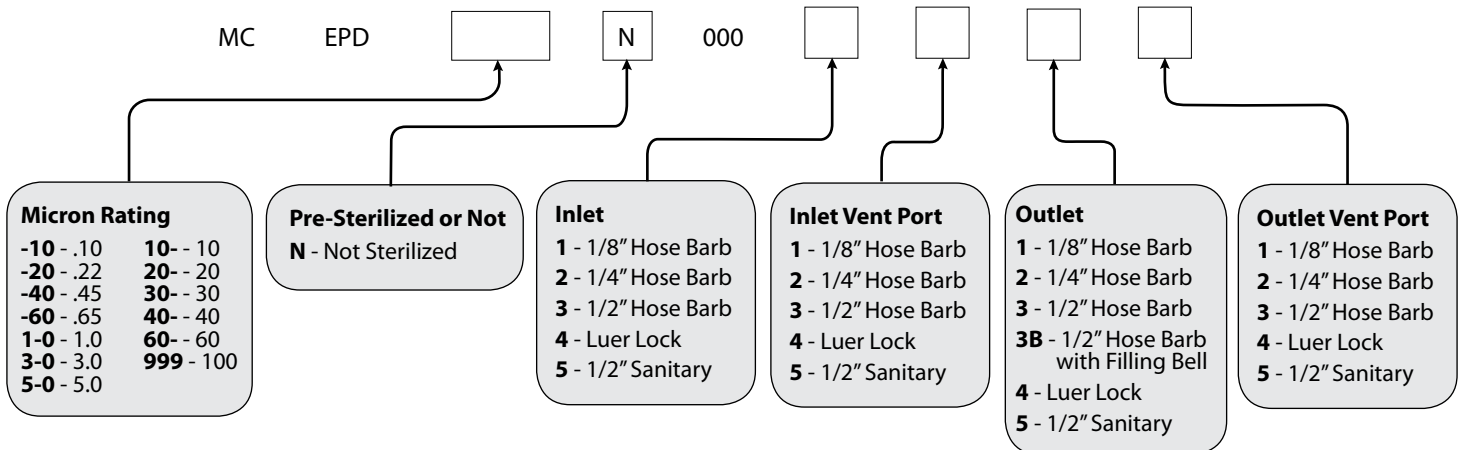
**Note** ..... EPD mini-capsules are not suitable for inline steam sterilization.

## Extractables

The levels of extractables in aqueous extracts from electronics grade filters are below 3ppb of TOC after product rinse during manufacturing. Electronics grade filters typically exhibit very low levels of non-volatile residues during startup.

## Ordering Information

Mini-Capsule order number example: Electronics Grade Pleated Polypropylene Depth Media, 0.22 Micron Rating, Non-Sterile, 1/2" Hose Barb Inlet, Luer Lock Inlet Vent Port, 1/2" Hose Barb Outlet, Luer Lock Outlet Vent Port = MCEPD-20N0003434.



## Quality Assurance and Standards

Our goal is to ensure our customers the greatest possible value for their filtration dollar. Our state of the art manufacturing facility and quality management system both meet ISO 9001:2008 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated clean rooms. A sophisticated MRP system collects and processes real time data from manufacturing centers and inspection points. This allows variable and attribute data to be quickly and easily analyzed driving constant improvements in both quality and cost.

## We Do It Right the First Time

We solve filtration challenges where filters are a critical part of your manufacturing process. Our Technical Team works with you to engineer filtration solutions that fit your needs. Then we manufacture the filters in our ISO 9001 certified facility and deliver them fast, so you have the right filters when you need them.

Request a **QUOTE** from your area representative



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