

EPD 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 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 filters can remove large amounts of particulate and other contaminants over a long filter life. EPD capsules protect the critical membrane filters downstream by removing 99.9% of contaminants at the rated pore size.

EPD capsule filter applications include prefiltration of process water before treatment (for UPDI), low to moderate temperature prefiltration of acids and bases, prefiltration of solvents, alcohols, plating solutions, photo resists and other fluids in bulk distribution systems.

EPD Capsule Filters - Filtration Area*

Media	Capsule Length				
	2"	5"	10"	20"	30"
Pleated Polypropylene Depth	1.0 ft ² (0.093m ²)	2.8 ft ² (0.260m ²)	5.8 ft ² (0.539m ²)	11.6 ft ² (1.078m ²)	17.4 ft ² (1.617m ²)

* Media surface area varies due to varying media thickness

Flow Rate / Filtration Area

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 2 inch capsule with 1.0 ft² (0.093m²) of media with 1/2" FNPT 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
GPM	0.20	0.60	1.0	1.2	1.6	2.4	3.2	3.6	4.0	>4.0	>4.0	>4.0	>3.5
LPM	0.76	2.27	3.78	4.54	6.05	9.08	12.11	13.62	15.14	>15.14	>15.14	>15.14	>13

* For approximate flow rates for 5" through 30" capsules, refer to the appropriate cartridge data sheet

Construction Materials

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

Maximum Operating Parameters

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

Integrity Test Information

Representative sample 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

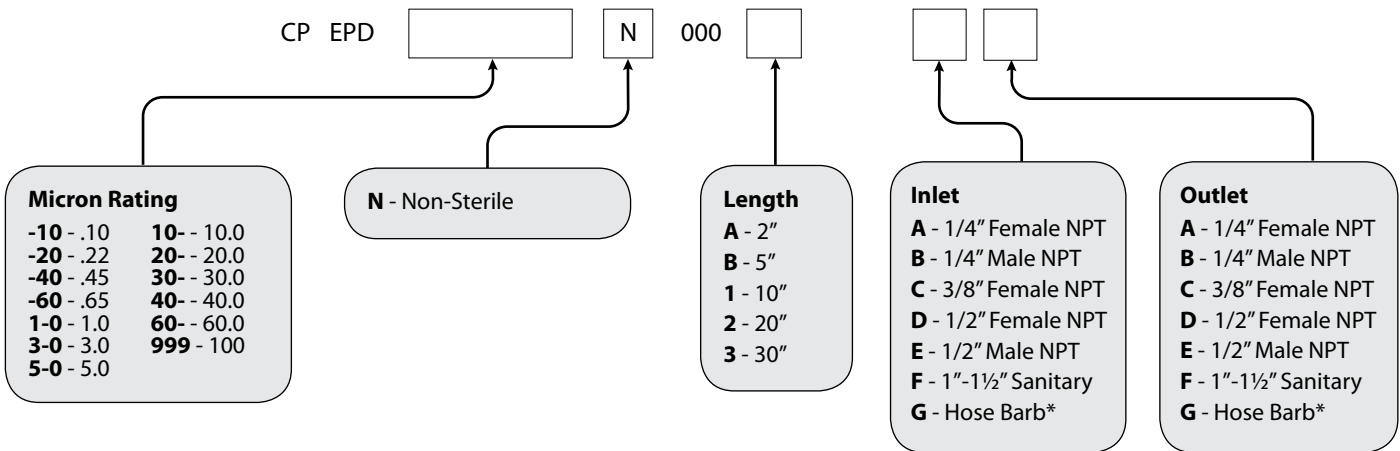
Autoclave.....250° F (121° C), 30 min, 5+ cycles
Chemical Sanitization Industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals.
NoteEPD capsules are not to be used in steam.

Extractables

The levels of extractables in aqueous extracts from electronics grade capsule 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

Capsule order number example: Electronics Grade Pleated Polypropylene Depth Media, 0.10 Micron Rating, Non-Sterile, 10" Length, Sanitary Inlet, Sanitary Outlet = CPEPD-10N0001FF.



Hose Barb Diameter Ranges*

	Minimum	Maximum
Outer Diameters	11/32" (8.6mm)	9/16" (14.0mm)
Inner Diameters	5/32" (4.0mm)	13/32" (10.5mm)

Quality Assurance and Standards

Critical Process Filtration uses state of the art computer controlled equipment to consistently produce high quality products as well as significantly reduce hand operations that can compromise quality. All manufacturing and testing is continuously monitored in real time so that data can be quickly and easily analyzed to facilitate improvements in both quality and cost.

The Critical Process Filtration manufacturing and quality systems meet rigorous ISO 9001:2008 standards. Each operation, including assembly, testing, cleaning, drying and packaging, is done in an appropriately rated clean room. Manufacturing is controlled using a sophisticated manufacturing system that networks work stations, manufacturing centers and inspection points. During the manufacturing and inspection processes, data is collected in real time to allow continuous quality monitoring and full traceability of all materials and processes.

Total Performance

Critical Process Filtration, Inc. is a vertically integrated manufacturer of filtration products to industries in which filtration is considered a critical part of the manufacturing process. We supply a complete line of products and services to help you cost effectively satisfy all your filtration requirements from a single source.

Request a QUOTE from your area representative



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