

Filter Data Sheet

ENM grade Nylon Membrane Media Filter Cartridges developed for the special needs of the electronics industry

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ENM cartridges are designed to meet the special needs of the electronics and high purity chemical industries. Able to remove particles below the rated pore size of the membrane, these cartridges exhibit superior retention. Often used for DI water, photoresist, developers and other compatible chemicals. Most cost effective membrane cartridge. Each cartridge module is pulse, power flushed until the rinse effluent reaches 17+ megohm-cm, and less than 3 ppb TOC. Each cartridge module is also individually tested for integrity. Our design criteria and special procedures allow us to provide the highest quality electronic grade cartridges.

Flow Rate

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 10 inch cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

Pore Size	0.03 µm	0.1 µm	0.22 µm	0.45 µm	0.65 µm
GPM	0.75	1.0	1.25	3.0	5.5

Dimensions

Length: 10 to 40 inches (25.4 to 101.6 cm.) nominal
Outside Diameter: 2.75 inches (7.0 cm.) nominal

Maximum Differential Pressures

Forward: 50 psi (3.4 bar) at 20°C.
Reverse: 40 psi (2.7 bar) at 20°C.

Ordering Information

The cartridge catalog number is made up of several variable characters i.e. pore size, end cap code, length, and O-ring material. For example: a 0.10 µm , 20 inch (50.8 cm.) long cartridge with 2-222, Teflon® Encapsulated Viton O-rings, no spear (flat top) and no 316 SS Ring would be designated as: ENM*10N00002T5.

ENM	□	□	□	□	0000	□	□	□
	<u>Pore size code</u> *03 - 0.03 µm *10 - 0.10 µm *20 - 0.22 µm *40 - 0.45 µm *60 - 0.65 µm	<u>316 SS Ring</u> S = Ring N = No Ring	<u>Cartridge Length</u> 1 = 10 inches (25.4 cm) 2 = 20 inches (50.8 cm) 3 = 30 inches (76.2 cm) 4 = 40 inches (101.6 cm)	<u>O-ring code</u> S - Silicone B - Buna V - Viton T - Teflon® Encapsulated Viton E - EPR R - Teflon® Encapsulated Silicone	<u>End cap code</u> 0 - Flat Gasket, double open end 5 - 2-222 O-ring 7 - 020 O-ring 8 - 2-222 O-ring with Spear 9 - 2-226 O-ring with Spear			

Construction Materials

Filtration Media:Nylon
Filtration Media Support:Polypropylene
End Caps:Polypropylene
Center Core:Polypropylene
Outer support Cage:Polypropylene
O-rings: Buna, Viton, Silicone, EPR, Teflon®

Sterilization/Sanitization

Chemical Sanitization:..... Nylon does not tolerate all of the common sanitization procedures used in cleaning DI water loops. The best results are obtained by sanitization protocols which coincide with filter change out. This allows new cartridges to be put into pre-sanitized isolated housings. Sanitization of new cartridges is not required, however if desired, safe sanitization protocols are available from Critical Process Filtration.

Integrity Test Specifications (per 10 inch length) (water wetted membrane)

Pore Size	Air Diffusion Rate
0.03 µm	≤ 30 cc/min. at 60 psi (4137 mbar)
0.1 µm	≤ 30 cc/min. at 48 psi (3307 mbar)
0.22 µm	≤ 30 cc/min. at 35 psi (2412 mbar)
0.45 µm	≤ 30 cc/min. at 20 psi (1378 mbar)
0.65 µm	≤ 30 cc/min. at 15 psi (1034 mbar)