

LifeASSURE™ EPF

Microporous Polyethersulfone Membrane Filters For Electronics Applications



LifeASSURE EPF filter cartridges have been specially designed to provide fast rinse-up time and superior flow rates with minimal pressure drop for process water, critical parts cleaning, and aqueous based chemical applications. The hydrophilic PES membrane with all polypropylene construction provides excellent chemical and thermal compatibility with aggressive chemicals while being an economic alternative to PTFE filter cartridges.

Built To Perform

LifeASSURE EPF filter cartridges do not require pre-wetting with IPA and system flushing with DI water. As a result, a potential source of contamination and chemical interaction is eliminated, thereby reducing downtime and hazardous waste disposal. The hydrophilic membrane also reduces the potential for bubble formation by not de-wetting in outgassing fluids unlike naturally hydrophobic membranes such as polypropylene, polyethylene, and PTFE.

LifeASSURE EPF filter cartridges are ideally suited for critical applications requiring high particle retention and high flow rates at 0.04, 0.1, 0.2, 0.45, 0.65 and 1.2 μm

Feature	Benefit	Applications
<ul style="list-style-type: none"> Hydrophilic PES Membrane 	<ul style="list-style-type: none"> Higher flow rates increase the rate of re-circulation which allows particle counts to be achieved more rapidly while reducing energy and down time No IPA pre-wetting and system flushing required - eliminates a potential source of contamination, while reducing hazardous waste disposal Reduces the potential for micro-bubble formation by not de-wetting in outgassing fluids unlike hydrophobic membranes 	<ul style="list-style-type: none"> Process Water Aqueous Cleaning Aqueous Based Chemicals Hot DI Water TFT-LCD Ink-Jet O.L.E.D.s Solvent Cleaning
<ul style="list-style-type: none"> Superior Filter Construction 	<ul style="list-style-type: none"> Excellent compatibility with wide range of chemicals Provides consistent performance throughout filter life Low cartridge extractables, free of amides, silicone and DOP 	

Specifications	
Membrane Material	Hydrophilic PES
Cage, Core, End Caps and Membrane Support Layer	Polypropylene
Filtration Surface Area (per 10" cartridge)	0.8 m ² (8.6 ft ²)
Outside Diameter (Nominal)	69 mm (2.7")
Length (Nominal)	254, 508, 762 and 1016 mm (10", 20", 30" and 40")
Maximum Forward Differential Pressure	5.5 kg/cm ² @ 20°C (78 psid @ 68°F)
	1.7 kg/cm ² @ 20°C (24 psid @ 176°F)
Maximum Operating Temperature	80°C (176°F)
Absolute Removal Ratings (μm)	0.04, 0.1, 0.2, 0.45, 0.65 and 1.2

Table 1 - LifeASSURE EPF Specific Pressure Drop (SPD)*			
Grade	Removal Rating (µm)	Specific Pressure Drop per 10" Cartridge	
		psi / gpm - cps	kg/cm ² / lpm - cps
EPF004	0.04	0.94	0.017
EPF010	0.10	0.47	0.009
EPF020	0.20	0.30	0.006
EPF045	0.45	0.19	0.003
EPF065	0.65	0.12	0.002
EPF120	1.20	0.09	0.002

* Specific aqueous pressure drop at ambient temperature for a single length equivalent (10") cartridge. For multiple cartridge lengths, divide the total flow by the number of equivalent lengths.

LifeASSURE EPF Filter Cartridge Ordering Guide

Model	Removal Rating (µm)	Configuration	Length	End Modification	Gasket / O-Ring Material	Option
EPF	004 - 0.04 010 - 0.10 020 - 0.20 045 - 0.45 065 - 0.65 120 - 1.20	A	01 - 10" 02 - 20" 03 - 30" 04 - 40"	B - 226 O-Ring & Spear C - 222 O-Ring & Spear D - Double Open End (10" Length) E - Double Open End (9¾" Length) J - 226 O-Ring & Flat Cap U - 222 O-Ring & Flat Cap	B - Fluorocarbon C - EPDM D - Nitrile ⁽¹⁾ K - Teflon® Encapsulated Viton® (TEV) ⁽²⁾	S - Standard P - Pre-Rinsed

⁽¹⁾ Available for D and E End Modifications only

⁽²⁾ Available for B, C, J and U End Modifications only

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Cuno Filtration Division

3M Asia Pacific Pte Ltd
1 Yishun Avenue 7
Singapore 768923
www.cuno.com