

# CLARIFLOW®-E-SELECT

Polyethersulfone (PES) Membrane Cartridge With Extended Surface Area



Clariflow-E - SELECT cartridges deliver high-purity water, acids, bases, and other aqueous solutions for semiconductor and microelectronics applications. The mirrored anisotropic polyethersulfone (PES) membrane provides superior flow rates, extended on-stream life, and demonstrates excellent compatibility over a pH range of 4 to 12.

Due to its innovative SELECT-Pleating, performance is increased markedly over similar competitive cartridges. Only one of every four pleats extends to the core, a feat that places most of the filtration area nearer to the outer diameter. This prevents crowding of the media around the core, which in standard-pleated cartridges tends to restrict the exiting flow. This innovative design results in higher flow rates, lower differential pressures, and longer life.

## **BENEFITS**

- High flow rate reduces processing time & allow for smaller system sizes
- Low extractables shorten start-up time
- Good chemical compatibility for use in most applications
- Longer life reduces the cost of filtration

## **APPLICATIONS**

- Pad and Point-Of-Use UPW
- Recirculating Etch Baths
- Chemical Processing
- Solvent Filtration

## **DETAILS**

### **LIQUID FLOW RATES\***

0.02 µm	0.9 gpm/psid (0.05 lpm/mbar)
0.04 µm	1.9 gpm/psid (0.10 lpm/mbar)
0.1 µm	2.6 gpm/psid (0.14 lpm/mbar)
0.2 µm	5.2 gpm/psid (0.29 lpm/mbar)

\*per 10-inch (25 cm) cartridge equivalent, and for fluids with viscosity of 1 cP.

### **MATERIALS OF CONSTRUCTION**

Membrane:	Polyethersulfone
Support Layers:	Polypropylene
Structure:	Polypropylene

All components are Thermally Bonded to assure integrity and reduce extractables.

### **MAXIMUM OPERATING PRESSURE**

Forward:	80 psid (5.5 bar) @ 20°C (68°F)
	40 psid (2.8 bar) @ 82°C (180°F)
Reverse:	40 psid (2.8 bar) @ 20°C (68°F)

### **CHEMICAL COMPATIBILITY**

Clariflow-E- SELECT cartridges are compatible with most electronic grade solvents and fluids. Consult the Chemical Compatibility Guide for specific information.

### **INTEGRITY TEST VALUES**

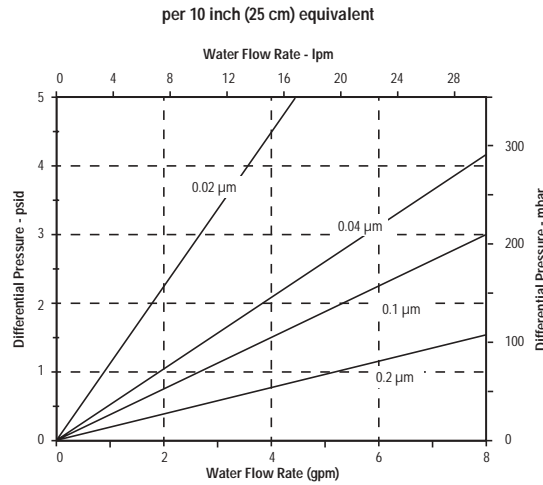
FILTER RATING	MAXIMUM DIFFUSIONAL FLOW*			
	µm	cc/min	Test pressure	
			psig	bar
0.02	25	55	3.8	
0.04	50	55	3.8	
0.1	50	55	3.8	
0.2	35	32	2.2	

\*Integrity test values are for cartridges wet with a 60%/40% solution of IPA/DI water.

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## PERFORMANCE CHARACTERISTICS



## ORDERING INFORMATION

Each cartridge is identified with a product number, pore size, and lot number for traceability.

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Insert Style		End Fitting		Length		Filter Rating		O-Ring	
CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	LENGTH	CODE	MICRON	CODE	MATERIAL
1	None (Std.)	2	226/Flat	10	10 (25 cm)	922	0.02 µm	1	EPDM
5	Encapsulated	3	222/Flat	20	20 (50 cm)	924	0.04 µm	2	Silicone
	Stainless Steel	7	226/Fin	30	30 (75 cm)	001	0.1 µm	4	Viton®
6	Encapsulated	8	222/Fin	40	40 (100 cm)	002	0.2 µm	5	FEP-Encapsulated
	Polysulfone							6	Viton
								N	FEP-Encapsulated
									Silicone
									None

Specifications are nominal and are subject to change without notice. Detailed technical information and selection assistance are available from the company.

## TECHNICAL SUPPORT and PRODUCT ORDERING

PTI Advanced Filtration provides unsurpassed product consistency and cost-efficiency for our customers. Our experienced professionals can help you select the right solution for your application. For more information or to place an order, contact your local distributor. Information on product specifications, applications and chemical compatibility can be found on our web site at [www.pti-afi.com](http://www.pti-afi.com) or through your nearest PTI Advanced Filtration office.

PTI designs and manufactures an extensive line of innovative solutions for specific applications in Biopharmaceutical, Microelectronics, Food & Beverage, Industrial and Chemical industries.

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