

PES-E

Electronics Grade Pleated Polyethersulfone Membrane Cartridge

The PES-E was developed for microelectronics industry where a high degree of particle retention and/or constant bacterial barrier for effective sterilization is required.

Hydrophilic asymmetric polyethersulfone membrane ensures excellent flow rates, broad chemical compatibility, low protein binding, low extractability, high mechanical strength, and temperature resistance in a variety of applications in the microelectronics industry. The PES E is 100% integrity tested and utilizes Strainrite's double rinse process to ensure extremely low extractables. Polyethersulfone offers a broad range of chemical compatibility and temperature performance.

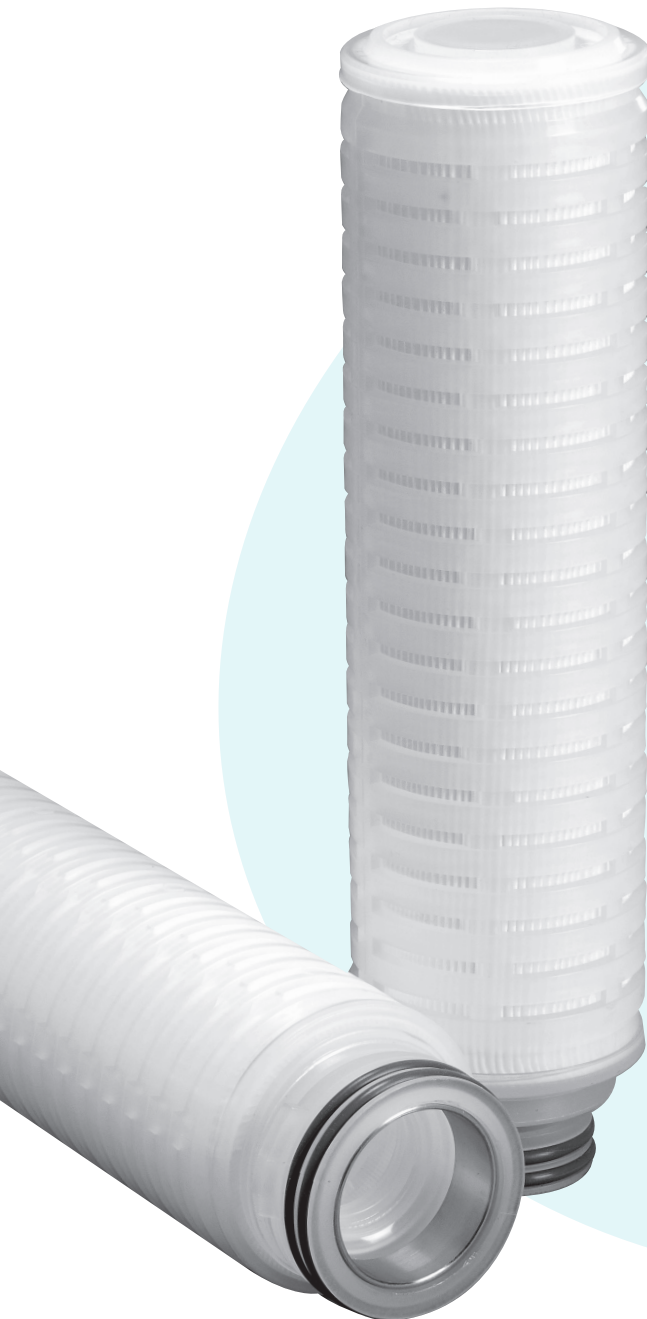
The PES-E meets USP Biological Reactivity Test, in vivo for class VI-121°C plastics. Sterilizable using industry recognized and accepted methods.

Features and Benefits

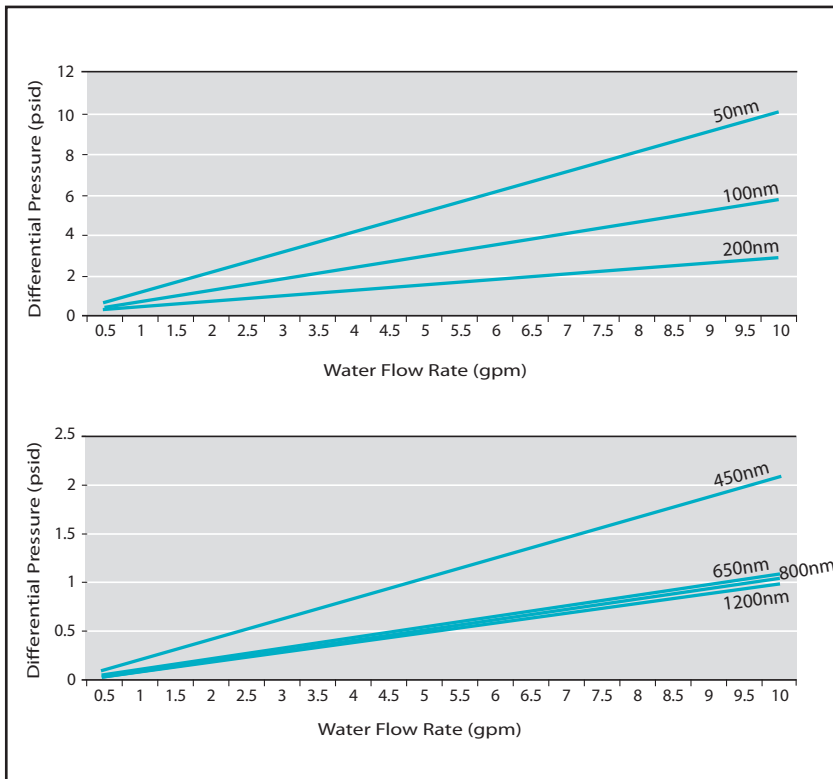
- High surface area membrane offers excellent life and flux rates while providing absolute filtration
- Absolute-rated membrane provides reliable, consistent and repeatable filtrate quality
- Low pressure drops yield higher flow rates and reduced processing time
- Non-fiber shedding Polypropylene support materials eliminate fiber migration
- MAXX-imum Pleat Design for greater surface area, ensuring longer service life, fewer change outs and reduced operating costs per element
- Thermally bonded construction without the use of adhesives or binders, resulting in lower extractables
- Integrity testable
- High strength design allowing for extended use

Typical Applications

Liquid Clarification
High Purity Chemical Filtration
General-Use Water Filtration
Deionized Water Systems



PES-E Pressure Drop vs. Flow Rate



Materials of Construction

Filter Media:	Polyethersulfone
Support Material:	Polypropylene
End Caps:	Polypropylene
Cage/Core:	Polypropylene
Sealing:	Thermal Bond
Seals:	Buna N, Fluorocarbon, EPDM FEP Encapsulated Fluorocarbon, PTFE, Silicone

Product Specifications

Dimensions

Outside Dia:	2.7" (6.87cm)
Lengths:	10" (25.4cm), 20" (50.8cm), 30" (76.2cm), 40" (102cm)
Surface Area:	6.8ft ² per 10" equivalent

**All Cartridges are 18 meg ohm flushed*

Performance Specifications:

Absolute Rated Retention in Nanometers
50,100, 200, 450, 650, 800,1200

Maximum Forward Differential Pressure

Forward:	75 psid (5.5 bar) @ 75°F (24°C) 40 psid (2.8 bar) @ 180°F (82°C)
Reverse:	50 psid (3.4 bar) @ 75°F (24°C)

Maximum Operating Temperature

180°F (82°C) Continuous Duty

Toxicity

Cartridge materials meet USP Class VI and CFR 21 for food and beverage contact

Sterilization:

Cartridge can be sterilized via steam or Autoclave: 20 times at 275°F (135°C) Cartridge may be sanitized in place with common sanitizing agents, contact factory for chemical compatibility

Packaging Economy

Bulk packaging in case quantities to reduce material disposal:

10 inch	24 per carton
20 inch	12 per carton
30 inch	12 per carton
40 inch	9 per carton

Cartridge Series ex. PESE	Nano-meters 200	Length -10	Support Materials PP	End Cap Configurations C7	Gasket/O-ring Materials S	Cartridge Grade E
PES-E	50	10	PP - Polypropylene	C1-DOE flat open ends	S - Silicone (standard O-rings)	E - Electronics
	100	20		C2-SOE recessed cup, internal 213 O-ring	B - Buna N (standard gaskets)	
	200	30		C3-SOE flat closed ends, external 222 O-ring	V - Fluorocarbon	
	450	40		C4-SOE flat closed end	E - EPDM	
	650			C5-SOE recessed cup, external 222 O-ring	T - PTFE	
	800			C6-SOE flat closed end, external 226 O-ring	TV - FEP Encapsulated Fluorocarbon	
	1200			C7-SOE fin end, external 226 O-ring		Options
				C8-SOE fin end, external 222 O-ring		I - 316 Stainless Steel Insert
						T- Integrity Tested