

Pleated polyethersulfone membrane filter elements for clear and sterile filtration of liquids with the lowest possible differential pressure.

Donaldson® Ultrasulfomem® PF-PES membrane filter elements, constructed with hydrophilic polyethersulfone membranes and all polypropylene components exhibit both enhanced throughput and reliable particle retention for superior performance in many applications. PF-PES filter elements are compatible with a broad range of chemicals and pH extremes. The low protein binding characteristics of polyethersulfone membranes ensure that PF-PES filter elements are suitable for a variety of beverage, chemical and pharmaceutical applications.

Constructed using thermal welding techniques, PF-PES filter elements do not contain any adhesives or additives and individual integrity testing assures that PF-PES filter elements meet the exacting performance requirements of our customers.



Ultrasulfomem PF-PES

APPLICATIONS

Ultrasulfomem PF-PES filter elements are designed and developed for the following industries and applications:

- Inks and dyes
- Pharmaceutical preparations
- Acids, bases & oxidants
- Serums and tissue culture media
- Process water

DIMENSIONS & SPECIFICATIONS

MATERIALS	
Filter Media	Hydrophilic Polyethersulfone Membrane
Support Layers	Polypropylene Microfiber
Core and Cage	Polypropylene
End Caps and Adapters	Polypropylene

DIMENSIONS	
Nominal O.D	2.75 in.
Nominal I.D	1.25 in.
Effective Filtration Area	9.0 ft ²
OPERATIONAL LIMITS	
Maximum forward differential pressure	60 psid (4.1 bar)
Maximum reverse differential pressure	30 psid (2.1 bar)
Maximum operating temperature	180°F (82°C) at 10 psid (0.7 bar) in water

ULTRASULFOMEM® PF-PES

INTEGRITY TESTING

Air diffusion per 10-inch module after saturation with clean water

Pore Size Rating	Specification
0.1 µm	≤ 2.75 cu.in./min. at 50 psig (3.4 bar)
0.2 µm	≤ 1.16 cu.in./min. at 30 psig (2.1 bar)
0.45 µm	≤ 0.98 cu.in./min. at 20 psig (1.4 bar)
0.65 µm	≤ 0.73 cu.in./min. at 13 psig (0.9 bar)

AVAILABLE ABSOLUTE MICRON RATING

0.04, 0.1, 0.2, 0.45 and 0.65 microns

ADDITIONAL INFORMATION

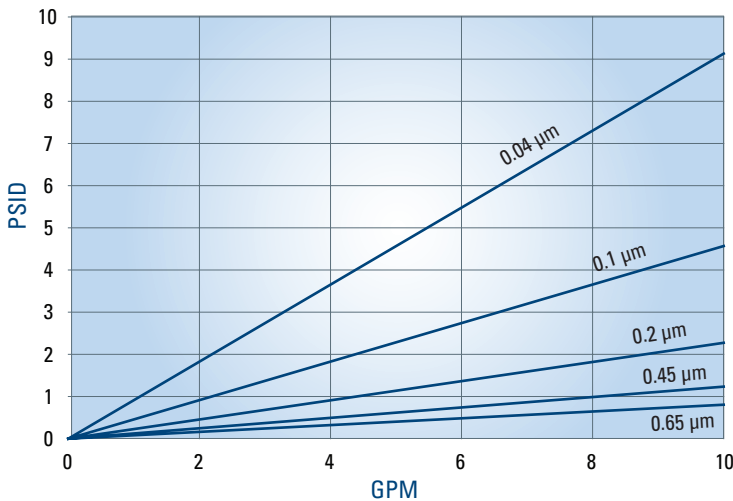
Ultrasulfomem PF-PES membrane filter elements may be autoclaved (250°F/121°C, 30 minute cycles) or in-situ steam sterilized (275°F/135°C, 30 minute cycles) for a maximum accumulated exposure of 10 hours. Alternatively, the filters may be sanitized with compatible chemical agents.

Donaldson certifies that the media used in its pleated filters meet the U.S. FDA requirements for processing beverage foods at up to 95°F, excepting distilled alcoholic beverages. Ultrasulfomem PF-PES filter elements meet the test criteria for USP Class VI-250°F Plastics and pass the MEM Elution Cytotoxicity Test.

Aqueous extracts from Ultrasulfomem PF-PES filter elements contain less than 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues.

These membrane filter elements are designed and manufactured for resistance to a wide range of chemical solutions. Conditions will vary with each application and users should carefully verify chemical compatibility.

**PF-PES Differential Pressure
Per Ten Inch Equivalent (TIE) – Water**



ORDERING INFORMATION

Base Model
Number 1C-PF-PES-(Length Code)-(Rating Code)
Example: 1C-PF-PES-P7-L3-M01

Element Length		Absolute Micron Rating	
Code	Length (in.)	Code	Rating
L05	5	M004	0.04 µm
L1	10	M01	0.1 µm
L2	20	M02	0.2 µm
L3	30	M045	0.45 µm
		M065	0.65 µm

STANDARD ELEMENT CONFIGURATION*

End #1 Adapter	2 x 226 O-Ring
End #2 Adapter	Fin
Elastomer Material	EPDM (0.04 µm) Silicone (0.1-0.65 µm)

*Other configurations available upon request



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