PPES-Series Pharmaceutical Grade Polyethersulfone

PPES-Series High Purity Pharmaceutical Grade Polyethersulfone Filter Cartridges are ideal for sterile filtration and clarification of pharmaceutical and biological solutions. Each PPES cartridge is integrity tested during manufacturing and is supported by a validation guide for regulatory compliance. Low protein binding and the broad chemical compatibility characteristics of the polyethersulfone membrane, along with exceptional flow rate vs pressure drop, makes the PPES-Series the ideal choice for a variety of valuable and/or critical pharmaceutical solutions.

PPES cartridges are fully validated as sterilizing grade filters in accordance with HIMA and ASTM F838-05 guidelines. For the 0.2 micron series elements, validation studies demonstrate sterile effluent is achieved with challenge concentrations in excess of 10^7, *Brevundimonas diminuta* per cm^2 of filter area. Additionally, validation studies of 0.1 micron series elements demonstrate 10^7 retention of Mycoplasma *(Acholeplasma laidlawii)* per cm^2 of filter area. Designed to tolerate repeated hot water sanitization and *in-situ* steam sterilization cycles for maximum service life. Manufactured in a clean-room environment to maintain high standards of purity and cleanliness.

Typical Applications

- Vaccines
- Large Volume Parenteral (LVP's)
- Water for Injection (WFI)
- Diagnostics
- Ophthalmics
- Cell and Tissue Culture Media
- Protein Solutions
- Serum and Blood Products

Construction Materials

Membrane.....Polyethersulfone
Support Media.....Polypropylene
End Caps.....Polypropylene
Center Core.....Polypropylene
Outer Support Cage.....Polypropylene
O-Rings/Gaskets.....Buna, EPDM, Silicone, Teflon® Encapsulated Viton®, Viton®, Teflon® Encapsulated Silicone

Note: O-ring adapters include integral reinforcement that will not deform with repeated steam sterilization or hot water sanitation cycles.

Toxicity

All polypropylene components meet the specifications for biological safety per USP Class VI – 121˚C for plastics.

Sterilization

Hot Water.....85°- 95°C, 30 min., max. ΔP 7 psi
In-Line Steaming.....134°C, 30 min., max. ΔP 7 psi; 100 cycles

Dimensions

Length:
10 to 40 inches (25.4 to 101.6 cm) nominal
Outside Diameter:
2.78 inches (7.06 cm) nominal

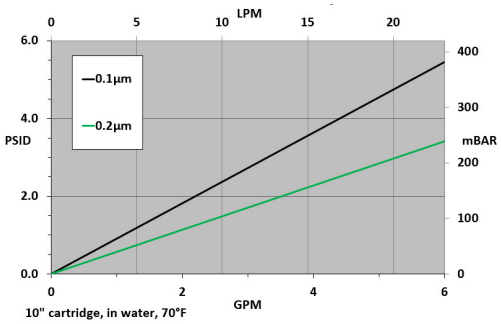
Operating Conditions

Change Out ΔP (recommended.....35 PSID
Temperature (max).....176˚F (80˚C)
Differential Pressure (max).....72 PSID (5.0 bar) at 68˚F (20˚C)

Food Safety Compliance

Materials of construction comply with FDA regulations for food and beverage contact use as detailed in the US Code of Federal Regulations, 21CFR. Materials used to produce filter media and hardware are deemed safe for use in contact with foodstuffs in accordance with EU Directives 2002/72/EC, 1935/2004, and/or 10/2011.

Flow Rate vs Pressure Drop



Ordering Information

PPES	Rating (µ)	A	Length	C	End Cap Style	O-Rings/Gaskets
	0.1		10" (25.4 cm)		2 = DOE Flat Gasket	B = Buna-N
	0.2		20" (50.8 cm)		3 = 222 w/ Fin	E = EPDM
			30" (76.2 cm)		4 = 222 w/ Flat Cap	S = Silicone
			40" (101.6 cm)		6 = 226 w/ Flat Cap	T = Teflon® Encapsulated Viton®
					7 = 226 w/ Fin	V = Viton®
					28 = 222 3-tabs w/ Fin	Z = Teflon® Encapsulated Silicone

DISCLAIMER: Filtration data presented is representative of performance observed in controlled laboratory testing. It is not given as a warranty, specification or statement of fitness for use. Specific performance can vary widely depending on contaminant type, fluid properties, flow rates and environmental conditions. It is recommended that users conduct thorough qualification testing to assure the product functions as required. For additional technical support, a product Validation Guide is available upon request.

GLOBAL FILTER
Filtration Group®

Corporate Office
7201 Mt. Vernon Road SE
Cedar Rapids, IA 52403 USA

Phone
Phone: + 1 319 743 0110

Online
Website: www.globalfilter.com