

GFPES-Series Food and Beverage Grade Polyethersulfone

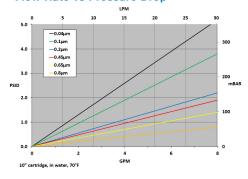
GFPES-Series High Purity Food and Beverage Grade Polyethersulfone Filter Cartridges meet the most demanding requirement of the food and beverage industry. The polyethersulfone membrane offers high flux density and low protein-binding and maintains the organoleptic characteristics of the treated product, making it an ideal choice for production of consumables. Cartridges are flushed with ultra-High Purity water to achieve the most stringent requirements for extractable substances. Designed to tolerate repeated hot water sanitization and *in-situ* steam sterilization cycles for maximum service life. Each element is integrity tested to assure optimal performance. Manufactured in a clean-room environment to maintain high standards of purity and cleanliness.

Microbial Retention Performance

Rating	Challenge Microbe	Log Reduction Value (LVR)			
.2μ	Brevundimonas diminuta	7.6			
.45μ	Serratia marcescens	6.6			
.65µ	Sacchromyces cerevisiae	4.8			

^{*}Independently tested in accordance with ASTM F838

Flow Rate vs Pressure Drop



Typical Applications

- Wine
- Beer
- Soft DrinksBottled Water
- Juices

Construction Materials

Membrane	Polyethersulfone
Support Media	Polypropylene
End Caps	Polypropylene
Center Core	Polypropylene
Outer Support Cages	Polypropylene
O-Rings/Gaskets	Buna, EPDM, Silicone
Teflor	n [®] Encapsulated Viton ^{®1} , Viton [®] ,
	Teflon® Encapsulated Silicone2

Dimension (Nominal)

Length 10 to	o 40 in (25.4 to 101.6 cm)
Outside Diameter	2.7 in (7.06 cm)

Operating Conditions

Change Out ΔP (recommended)	35 PSID (2.4 bar)
Temperature (max)	176°F (80°C)
Differential Pressure (max)	50 PSID at 68°F
	(3.4 bar at 20°C)

Sanitization/Sterilization

Filtered Hot Water 176°F	(80°C) for 30 min
Steaming Sterilization 250°F (121°C) for 30 min
	multiple cycles

Chemicals: Cartridges are compatible with most chemical sanitizing agents.

Note: Stainless steel insert option required for all cartridges being hot water sanitized or steam sterilized.

Toxicity

All polypropylene components meet the specifications for biological safety per USP Class $VI - 121^{\circ}C$ for plastics.

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 1935/2004, and/or 10/2011.

Ordering Information

GFPES	Rating(µ)	А	Length	С	End Cap Style	O-Rings/Gaskets	Adders
	0.04		10" (25.4cm)		2 = DOE Flat Gasket12	B = Buna-N	CS = 316SS Compression Spring
	0.1		20" (50.8 cm)		3 = 222 w/Fin	E = EPDM	I = Stainless Steel Insert
	0.2		30" (76.2 cm)		4 = 222 w/Flat Cap	S = Silicone	
	0.45		40" (101.6 cm)		6 = 226 w/Flat Cap	T = Teflon® Encapsulated Viton®1	
	0.65				7 = 226 w/Fin	V = Viton®	
	0.8				16 = 213 Internal O-Ring	Z = Teflon® Encapsulated Silicone²	
					28 = 222 3-Tabs w/ Fin		

^{1 -} When ordering with DOE Flat Gasket, gasket style "T" is not available

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 Performance Guide is available upon requested.

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^{2 -} When ordering with DOE Flat Gasket, gasket style "Z" is not available