

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.

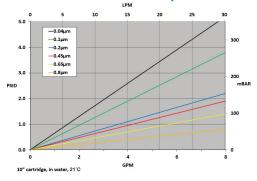
Designed to tolerate repeated hot water sanitization and *in-situ* steam sterilization cycles for maximum service life. Each element is integrity tested to assure optimal performance. Manufactured in a clean-room environment to maintain high standards of purity and cleanliness. These cartridges ensure absolute filtration of fine particles for particulate filtration as well as effective microbial retention.

Microbial Retention Performance

Rating	Challenge Microbe	Log Reduction Value (LRV)	
0,2 μ	Brevundimonas diminuta	7,6	
0,45 μ	Serratia marcescens	6,6	
0,65 μ	Saccharomyces cerevisiae	4,8	

^{*}Independently tested in accordance with ASTM F838.

Flow Rate vs Pressure Drop





Construction Materials

Membrane	Polyethersulfone
Support Media	Polypropylene
End Caps	Polypropylene
Center Core	Polypropylene
Outer Support Cage.	Polypropylene
O-Rings/Gaskets	Buna, EPDM, Silicone, FKM, FEP FKM, FEP Silicone

Sanitization/Sterilization

Steam Sterilization......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, for 222 and 226 connections.

Typical Applications

- Wine
- Beer
- Juices
- Soft Drinks
- Bottled Water

Dimensions

Length:

10 to 40 inches (25.4 to 101.6 cm) nominal

Outside Diameter:

2.70 inches (7.0 cm) nominal

Operating Conditions

Change Out ΔP (recommended)	2,4 bar
Temperature (max)	80°C
Differential Pressure (max)	3,4 bar at 20°C

Toxicity

All polypropylene components meet the specifications for biological safety per USP Class VI – 121°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)	Α	Length	С	End Cap Style	O-Rings/Gaskets	Adders
	0,04		10" (25.4 cm)		2 = DOE Flat Gasket	B = Buna	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 = FEP FKM*	
	0,65				7 = 226 w/ Fin	V = FKM	
	0,8				16 = 213 / Internal O-Ring	Z = FEP Silicone*	
					28 = 222 3-tabs w/ Fin		

^{*} if DOE , option 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.

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