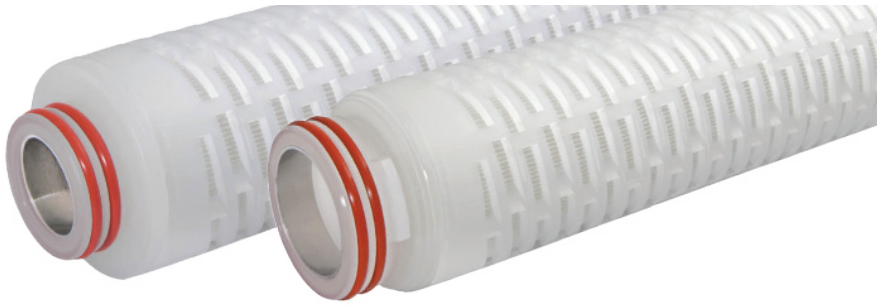
LENNTECH
WATER TREATMENT SOLUTIONS

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 diffusion tested for integrity to assure optimal performance. Manufactured in a clean-room environment to maintain high standards of purity and cleanliness.

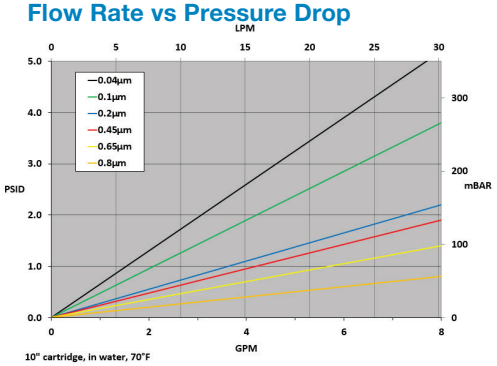


Microbial Retention Performance

Rating	Challenge Microbe	Log Reduction Value (LRV)
0.2µ	*Brevundimonas diminuta*	7.6
0.45µ	*Serratia marcescens*	6.6
0.65µ	*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, Teflon® Encapsulated Viton®, Viton®, Teflon® Encapsulated Silicone

Sanitization/Sterilization

Filtered Hot Water.....80˚C for 30 min.
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.

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.....35 PSID
Temperature (max).....176˚F (80˚C)
Differential Pressure (max).....50 PSID (3.4 bar) at 68˚F (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 2002/72/EC, 1935/2004, and/or 10/2011.

Ordering Information

GFPES	Rating (µ)	A	Length	C	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 = Teflon® Encapsulated Viton®	
	0.65				7 = 226 w/ Fin	V = Viton®	
	0.8				16 = 213 Internal O-Ring	Z = Teflon® Encapsulated Silicone	
					28 = 222 3-tabs w/ Fin		

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