

## GBPES-Series Wine and Beverage Grade Polyethersulfone

GBPES-Series High Purity Wine and Beverage Grade Polyethersulfone Filter Cartridges are optimized for the requirements of the wine 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.

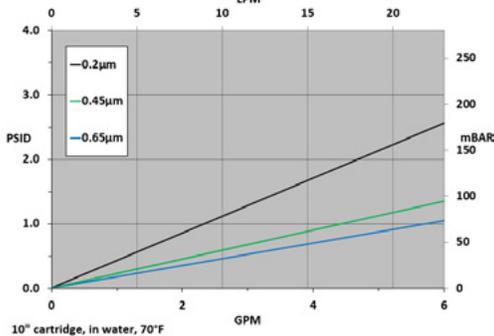


### Microbial Retention Performance

Rating	Challenge Microorganism	LRV
0.2 $\mu$	<i>Serratia marcescens</i>	6.6
0.45 $\mu$	<i>Sacchromyces cerevisiae</i>	4.8

\* Independently tested in accordance with ASTM F838.

### Flow Rate vs Pressure Drop



### Ordering Information

GBPES	Rating ( $\mu$ )	A	Length	C	End Cap Style	O-Rings/Gaskets	-	Adders
	0.2		10" (25.4 cm)		2 = DOE Flat Gasket	B = Buna		CS = 316SS Compression Spring
	0.45		20" (50.8 cm)		3 = 222 w/ Fin	E = EPDM		
	0.65		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®		
						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.

### Typical Applications

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

### Construction Materials

**Membrane**..... Polyethersulfone  
**Support Media**..... Polypropylene  
**End Caps**..... Polypropylene  
**Cages and Cores**..... Polypropylene  
**O-Rings/Gaskets**..... Buna, EPDM, Silicone, Teflon® Encapsulated Viton®, Viton®

**Note:** All cartridges provided standard with an integral stainless steel reinforcement ring to prevent deformation of the o-ring adapter during steam sterilization or hot water sanitization processes.

**Sanitization Chemicals:** Peracetic acid, chlorinated alkaline products, bleach, sulfur dioxide and hydrogen peroxide at typical sanitization concentrations and temperatures.

### Sanitization/Sterilization

**Hot Water**..... 85-95°C, 30 min., max dP 7 PSI  
**Steam Sterilization**..... 134°C for 30 min., max dP 7 psi, multiple cycles

### 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  $\Delta$ P (recommended)**..... 35 PSID  
**Temperature (max)** ..... 176°F (80°C)  
**Differential Pressure (max)** ..... 72 PSID  
 (5.0 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.