

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

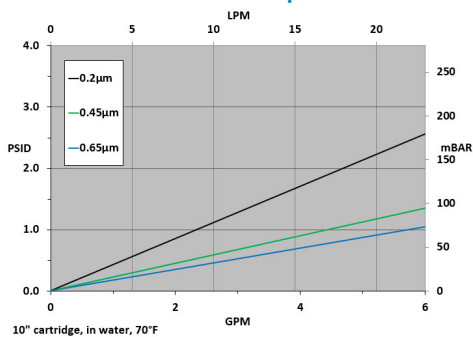


### Microbial Retention Performance

Rating	Challenge Microbe	Log Reduction Value (LVR)
.02µ	<i>Serratia marcescens</i>	6.5
.45µ	<i>Sacchromyces cerevisiae</i>	6.6
.65µ	<i>Sacchromyces cerevisiae</i> , <i>Lactobacillus</i>	7.8

\*Independently tested in accordance with STM F838

### Flow Rate vs Pressure Drop



### Typical Applications

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

### Construction Materials

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

### Dimension (Nominal)

**Length** ..... 10 to 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)** ..... 72 PSID at 68°F  
 (5.0 bar at 20°C)

### Sanitization/Sterilization

**Hot Water** ..... 185° - 203°F (85°-95°C) for 30 min  
 max ΔP 7 psi

**In-Line Steaming** ..... 273°F (134°C) for 30 min  
 max ΔP 7 psi, 100 cycles

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

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

### 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

GBPES	Rating(µ)	A	Length	C	End Cap Style	O-Rings/Gaskets	-	Adders
	0.2		10" (25.4cm)		2 = DOE Flat Gasket	B = Buna-N		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®		
					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 Performance Guide is available upon request.

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