

## BRPES-Series Bio-Burden Reduction Grade Polyethersulfone

BRPES-Series High Purity Bio-Burden Reduction Grade Filter Polyethersulfone Cartridges are validated and 100% integrity tested; providing bio-burden and small particle removal across a wide range of food & beverage, biological liquids, and intermediate bulk pharmaceutical fluids. The BRPES-Series is constructed using a unique single-layer hydrophilic asymmetric polyethersulfone membrane. This construction offers broad chemical compatibility, high flow-rates at low pressure drops, and low extractables. BRPES cartridges are ideal as either a final filtration stage or as an extremely effective prefilter to a sterilizing stage. Manufactured in a clean-room environment to maintain high standards of purity and cleanliness.

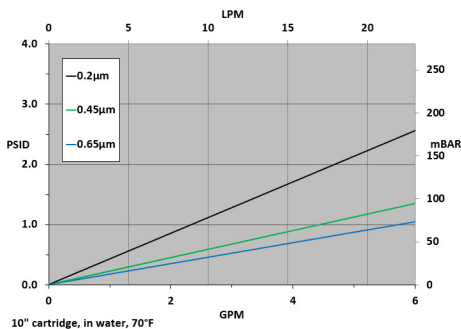


### Microbial Retention Performance

Rating	Challenge Microbe	Log Reduction Value (LVR)
.2µ	<i>Brevundimonas diminuta</i>	>8.0
.45µ	<i>Lactobacillus lindneri</i> , <i>Serratia marcescens</i>	>8.0
.65µ	<i>Lactobacillus lindneri</i> , <i>Saccharomyces cerevisiae</i>	>8.0

\*Independently tested in accordance with ASTM F838

### Flow Rate vs Pressure Drop



### Typical Applications

- Cell Culture Media
- Large Volume Parenterals (LVP's)
- Pharmaceutical Bulk Chemical Solutions
- Diagnostics
- Blood and Serum Fractions
- Purified Water
- Beer, Wine & Spirits
- Juice & Soft Drinks
- Bottled Water

### Construction Materials

**Membrane** ..... Polyethersulfone  
**Support Media** ..... Polypropylene  
**End Caps** ..... Polypropylene  
**Center Core** ..... Polypropylene  
**Outer Support Cages** ..... Polypropylene  
**O-Rings/Gaskets** ..... Buna, EPDM, Silicone  
 Teflon® Encapsulated Viton®, Viton®,  
 Teflon® Encapsulated Silicone<sup>2</sup>

**Note:** O-ring adapters include integral reinforcement that will not deform with repeated steam sterilization or hot water sanitation cycles.

### Dimension (Nominal)

**Length** ..... 10 to 40 in (25.4 to 101.6 cm)  
**Outside Diameter** ..... 2.78 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

### 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

BRPES	Rating(µ)	A	Length	C	End Cap Style	O-Rings/Gaskets
	0.2		10" (25.4cm)		2 = DOE Flat Gasket <sup>1 2</sup>	B = Buna-N
	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® <sup>1</sup>
					7 = 226 w/Fin	V = Viton®
					28 = 222 3-Tabs w/ Fin	Z = Teflon® Encapsulated Silicone <sup>2</sup>

1 - When ordering with DOE Flat Gasket, gasket style "T" is not available  
 2 - When ordering with DOE Flat Gasket, gasket style "Z" 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 request.