

## Filter Data Sheet

### High Purity - Bio-Burden Reduction Grade PES

Hydrophilic Polyethersulfone Membrane Cartridges for Bio-Burden Reduction in Food & Beverage and Pharmaceutical Applications

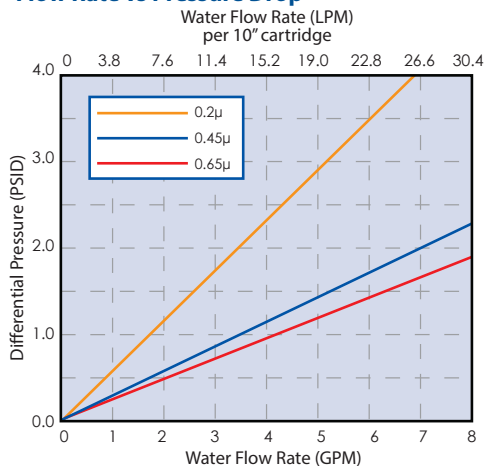
**BRPES Bio-Burden Reduction Grade** filter cartridges are validated and 100% integrity-tested; providing bio-burden and small particle removal across a wide range of food & beverage, biological liquids and intermediate bulk pharmaceutical fluids. The BRPES series is constructed using a unique single-layer 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. BRPES cartridges have exhibited average log-reduction values of >8 when challenged with the following microorganisms:

- 0.2µm *Brevundimonas diminuta*
- 0.45µm *Lactobacillus lindneri*, *Serratia marcescens*
- 0.65µm *Lactobacillus lindneri*, *Saccharomyces cerevisiae*

#### 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 and Spirits
- Juice & Soft Drinks
- Bottled Water

#### Construction Materials

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

#### Sterilization

**Hot Water** ..... 85°- 95°C, 30 min., max. ΔP 7 psi  
**In-Line Steaming** ..... 134°C, 30 min., max. ΔP 7 psi; 100 cycles

#### Dimensions

**Length:**  
10 to 40 inches (25.4 to 101.6 cm) nominal  
**Outside Diameter:**  
2.70 inches (7.0 cm) nominal

#### Maximum Recommended Operating Conditions

**Temperature** ..... 176°F (80°C)  
**Forward** ..... 72 PSI (5 bar) at 68°F (20°C)  
 29 PSI (2 bar) at 176°F (80°C)  
**Reverse** ..... 29 PSI (2 bar)

#### Toxicity

All polypropylene components meet the specifications for biological safety per USP Class VI – 121°C for plastics.

#### FDA Listed Materials

Manufactured from materials which are listed for food contact applications in Title 21 of the U.S. Code of Federal Regulations.

#### Ordering Information

| BRPES | Rating (µ) | A | Length, Nominal | C | End Cap Style       | O-Rings/Gaskets                 |
|-------|------------|---|-----------------|---|---------------------|---------------------------------|
|       | 0.2        |   | 10" (25.4 cm)   |   | 2 = DOE Flat Gasket | 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 | V = Viton®                      |
|       |            |   |                 |   | 7 = 226 w/ Fin      | T = Teflon® Encapsulated Viton® |

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.