

# WESTCO FILTERS

Liquid Filter Solutions since 1982

## FBPES High Purity - Hydrophilic Polyethersulfone (PES) Membrane

### Food and Beverage Grade PES Cartridges

have been designed to comply with all FDA requirements for the food industry. The polyethersulfone membrane exhibits low protein-binding characteristics; making the FBPES series an excellent choice for fermented beverage applications. Each cartridge is flushed with high purity DI water and 100% integrity tested to ensure the delivery of clean effluent as well as low extractables. The Extended Area option (FBPESX) offers up to 40% more surface area. This additional area results in significant increases in flowrate and loading capacity in the same footprint.

The 0.2 micron cartridge has been validated with *Brevundamonas diminuta* and exhibits a Log 7 reduction (107 organisms/cm<sup>2</sup>) of the bacteria. Additionally, the 0.45 micron cartridge has been validated with *Serratia marscecens* and also shows a Log 7 reduction (107 organisms/cm<sup>2</sup>) of the bacteria.



### Construction Materials

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

### Typical Applications

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

### Sanitization/Sterilization

<b>Filtered Hot Water</b> .....	80°C for 30 min.
<b>Steam Sterilization</b> .....	121°C for 30 min., multiple cycles

**Chemicals:** Cartridges are chemically compatible with most chemicals and sanitizing agents.

**Note:** Stainless steel insert option needed for all cartridges being hot water sanitized or steam sterilized.

### 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)

### Maximum Differential Pressures

**Forward**..... 50 PSI (3.4 bar) at 20°C  
**Reverse**..... 40 PSI (2.7 bar) at 20°C

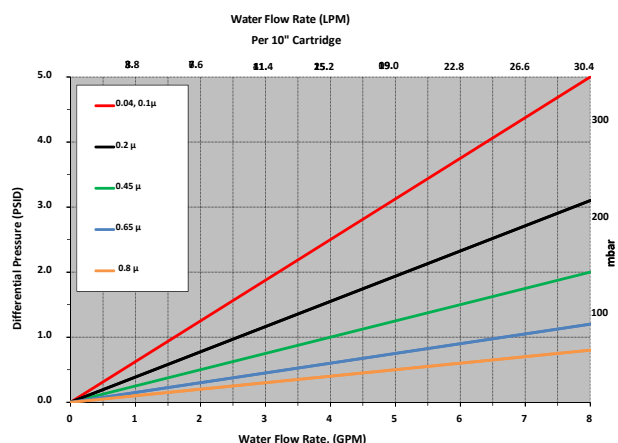
### FDA Listed Materials

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

### Toxicity

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

### Flow Rate vs Pressure Drop



\* Data represents FBPES For FBPESX option, multiply given flowrate by 1.4.