HP-PESB Series

Polyethersulfone Membrane

– Beverage Grade





Applications

- Beer
- RO Pre/Postfiltration
- Malt Beverages
- Food and Beverage
- Wine
- Water and Wastewater
- Process Water
- Bottled Water



Commercial / Industrial Filtration Applications

Standard Features

- Manufactured in USA
- Absolute retention ratings from 0.1 to 1.2 microns
- 7.2 square feet (0.67 m2) of media surface area per ten inch length for high throughput and longer service life
- Fully integrity tested to ensure reliable performance in critical applications
- 100% flushed with 18 megohm DI water for low extractables
- Manufactured in a Class 10,000 Clean Room environment for high purity
- Rigid, molded cage protects pleated media and strengthens structural stability
- Complies with Food and Drug Administration's CFR criteria for food and beverage contact
- Meets USP Class VI Biological Test for plastics
- Available in up to 40 inches in length (10-inch modules)

Specifications, Operating Parameters and Options

Micron Sizes

0.1, 0.2, 0.45, 0.65, 0.8, 1.0, 1.2

Nominal Lengths

9.75" (24.7 cm), 10" (25.4 cm), 20" (50.8 cm), 30" (76.2 cm), and 40" (101.6 cm)

Inside and Outside Diameters

1.0" (2.54 cm) ID, 2.67" (6.78 cm) OD

Media Surface Area

7.2 sq. ft. (0.67 m2) per 10 inches filter length

Maximum Operating Temperature

176°F (80°C) temperature limit

Recommended Change-Out Differential Pressure

35 psid (2.4 bar)

Maximum Differential (Collapse) Pressure

75 psid@70°F (5.2 bar@21°C), 40 psid@176°F (2.8 bar @80°C)

Sanitization and Sterilization

Hot water at 175°F (80°C) at 5 psid for 30 minutes Inline steam at 257°F (125°C) @ 1 psid (0.7 bar) for 30 minutes Autoclavable at 257°F (125°C) for 30 minutes

Materials of Construction

Filter media: polyethersulfone

Outer cage, inner core and end caps: polypropylene

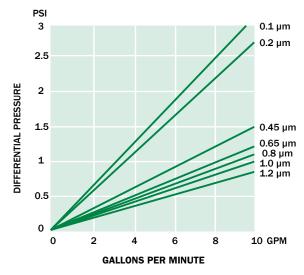
FDA and USP Compliance

All polypropylene materials comply with the requirements of Food and Drug Administration Title 21 of The Code of Federal Regulations 174.5, 177.1520 and 177.1830. All components meet current USP Class VI biological tests for plastics

Ordering Guide (Example: HP-PESB-26100-0.2213-B-HT)

| HP - | - PESB - | - 26 | 100 - | - 0.2 | 213 - | - B - | - HT |
|---------------------------|---|-------------------------|--|---|--|---|--------------------------------------|
| HIGH PURITY PLEATED | MEDIA | CARTRIDGE DIAMETER | CARTRIDGE LENGTH | MICRON RATING | END CAP | O-RING / GASKETS | OPTIONS |
| НР | PESB = Hydrophilic Polyethersulfone Membrane (beverage grade) | 26 = 2.67" (6.78 cm) | 097 = 9-3/4" 100 = 10" 200 = 20" 300 = 30" 400 = 40" | 0.1 = 0.1 0.2 = 0.2 0.45 = 0.45 0.65 = 0.65 0.8 = 0.8 1 = 1.0 1.2 = 1.2 | Blank = DOE (standard) 213 = 213 internal O-ring 222f = 222/Flat 222n = 222/Fin 222s = 222/Spring 226f = 226/Flat 226n = 226/Fin SOEf = SOE/Flat SOEs = SOE/Spring SOEn = SOE/Fin Z = Custom | E = EPDM B = Buna N S = Silicone V = Viton T = Teflon | HT= High Temp (200°F, 93°C) |

Flow vs. Pressure Drop



This chart represents the typical water flow per 10" cartridge length. Cartridges are tested in water at ambient temperature. Data may be extrapolated for multiple lengths, but as flow rate increases, ΔP of the housing becomes more apparent.

Integrity Testing

| PORE SIZE | AIR DIFFUSION RATE |
|---------------|-------------------------|
| 0.1µm | ≤30cc/min@48psi |
| 0.2µm | ≤30cc/min@35psi |
| 0.45µm | ≤30cc/min@20psi |
| 0.65µm | ≤30cc/min@15psi |
| 0.8µm | ≤30cc/min@12psi |
| 1.0µm | ≤30cc/min@8psi |
| 1.2µm | ≤30cc/min@7psi |
| | |
| Per 10" lengt | h water wetted membrane |



Available End Cap Configurations











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