# HP-PESG Series Polyethersulfone Membrane – General Grade



# **Applications**

- RO Pre/Postfiltration
- DI Water
- Plating Solutions
- Food and Beverage
- Cosmetics
- Water and Wastewater
- Specialty Chemicals
- Bottled Water
- Microelectronics
- Process Water



# neo-pure

# *Commercial / Industrial Filtration Applications*

# **Standard Features**

- Manufactured in USA
- Absolute retention ratings from 0.03 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
- Polypropylene hardware offers a wide range of chemical compatibility
- 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

0.03, 0.1, 0.2, 0.45, 0.65, 0.8, 1.0, 1.2 micron absolute retention Nominal Lengths

9.75" (24.7 cm), 10" (25.4 cm), 20" (50.8 cm), 30" (76.2 cm), 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**

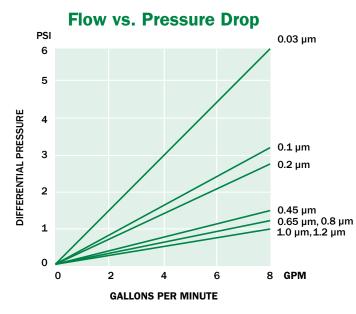
Filter media: assymmetric polyethersulfone Outer cage, inner core and end caps: polypropylene

#### **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

<b>Ordering Guide</b>	(Example: HP-PESG-26100-0.2213-B-HT)
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HP ·	- PESG -	- 26	100 -	- 0.2	<b>213</b>	- B ·	- HT
HIGH PURITY PLEATED	MEDIA	CARTRIDGE DIAMETER	CARTRIDGE LENGTH	MICRON RATING	END CAP	O-RING / GASKETS	OPTIONS
HP	PESG = Hydrophilic Polyethersulfone Membrane (general grade)	26 = 2.67" (6.78 cm)	097 = 9-3/4" 100 = 10" 200 = 20" 300 = 30" 400 = 40"	0.03 = 0.03 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 0-ring   222f = 222/Flat   222n = 222/Fin   222s = 222/Spring   226f = 226/Flat   226n = 226/Flat   226n = 226/Flat   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)



### **Integrity Testing**

PORE SIZE	AIR DIFFUSION RATE			
0.03μm 0.1μm 0.2μm 0.45μm 0.65μm 0.8μm	<55cc/min@60psi <55cc/min@48psi <55cc/min@40psi <55cc/min@20psi <55cc/min@15psi <55cc/min@12psi			
1.0μm 1.2μm	<55cc/min@8psi <55cc/min@7psi			
Per 10" length water wetted membrane				



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,  $\Delta P$  of the housing becomes more apparent.

# **Available End Cap Configurations**



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