

# PharmBiologic Solutions, LLC

## Advancing custom solutions



### Filter Data Sheet

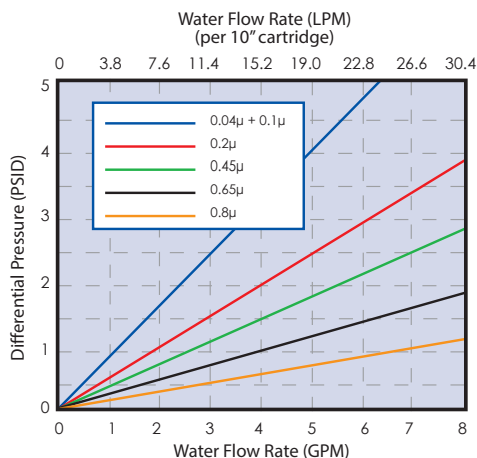
#### High Purity - Water Service Grade PES

Hydrophilic Polyethersulfone (PES) Membrane for Water Purification

**Water Service Grade PES Cartridges** are cost effective alternatives to General and Electronic Grade cartridges for a variety of aqueous based fluids. Water Service cartridges are manufactured from an inherently hydrophilic PES membrane. These cartridges offer excellent flow characteristics, extended service life and broad chemical compatibility.



#### Flow Rate



#### Typical Applications

Deionized Water Systems  
General-Use Water Filtration  
Liquid Clarification  
Recirculating Fluids  
Chemical Filtration

#### Ordering Information

GW PES	Rating (μ)	A	Length	C	End Cap Style	O-Rings/Gaskets	-	Adders
	0.04		10" (25.4 cm)		2 = DOE Flat Gasket	B = Buna		I = Stainless Steel Insert
	0.1		20" (50.8 cm)		3 = 222 w/ Fin	E = EPDM		HP = Heavy Poly Core
	0.2		30" (76.2 cm)		4 = 222 w/ Flat Cap	S = Silicone		CS = 316ss Compression Spring
	0.45		40" (101.6 cm)		6 = 226 w/ Flat Cap	V = Viton		
	0.65				7 = 226 w/ Fin	T = Teflon® Encapsulated Viton		
	0.8				16 = 213 Internal O-Ring			

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.

#### Construction Materials

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

#### Sanitization/Sterilization

**Filtered Hot Water** ..... 80°C for 30 min.  
**Steam Sterilization** ..... 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 specifications for biological safety per USP Class VI – 121°C for plastics.

