

## Filter Data Sheet

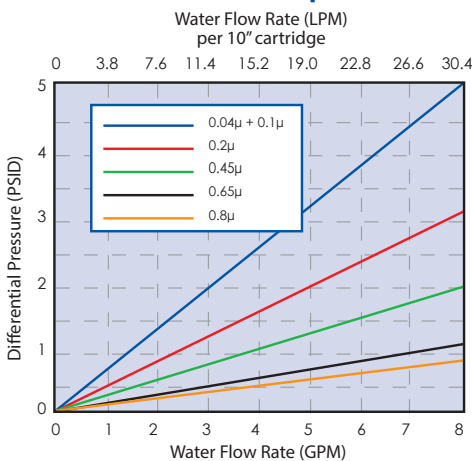
### High Purity - Electronics Grade PES

Hydrophilic Polyethersulfone (PES) Membrane for Electronics Applications

**Electronics Grade PES Cartridges** are designed to meet the special needs of the electronics and high purity chemical industries. GGPES membrane cartridges are resistant to most acids and bases and are compatible with most sanitizing agents. The GGPES series delivers high flowrates at low pressure drops; making it an excellent choice for Ultra-Pure water systems. Each cartridge is flushed to 18 MΩ with UPW and 100% integrity tested to deliver ultra-clean effluent as well as ultra-low extractables. The Extended Area option (GGPESX) offers up to 40% more surface area. This additional area results in significant increases in flowrate and loading capacity in the same footprint.



#### Flow Rate vs Pressure Drop



Data represents GGPES. For GGPESX options, multiply given flowrate by 1.4.

#### Typical Applications

- Ultra-Pure Water Systems
- Fine Chemical Filtration
- Photoresist Chemicals

#### Ordering Information

GGPES	Rating (µ)	A	Length	C	End Cap Style	O-Rings/Gaskets	-	Adders
GGPESX	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		CS = 316ss Compression Spring
	0.2		30" (76.2 cm)		4 = 222 w/ Flat Cap	S = Silicone		R = 18 Megohm Rinse
	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	Z = Teflon® Encapsulated Silicone		

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, EPDM, Silicone, Viton®, 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.