

## Filter Data Sheet

### *GPS<sub>grade</sub> Polyethersulfone Membrane Media Filter Cartridges engineered and manufactured for cost effective filtration*

**Dist. by: H.R. Peterson Co. - 814 Prior Ave. No. - St. Paul, MN 55104**  
**Telephone: 651-646-4529 Toll Free: 1-800-646-4505 Fax: 651-646-8792**

GPS grade Polyethersulfone cartridges are designed for general purpose use wherever a cost effective membrane filter is required. Designed to hold the maximum amount of filter media that can be completely and effectively utilized in a cartridge, GPS filters lower the cost of filtration. GPS cartridges are flushed with 17+ megohm-cm water to remove potential extraneous manufacturing debris. These cartridge modules are also individually tested. Priced below special purpose cartridges, GPS cartridges are still manufactured with the same careful attention to both quality and performance.

#### Flow Rate

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 10 inch cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

| Pore Size | 0.03 µm | 0.10 µm | 0.22 µm | 0.45 µm | 0.65 µm |
|-----------|---------|---------|---------|---------|---------|
| GPM       | 1.5     | 2.5     | 4.5     | 7.0     | 8.3     |

#### Dimensions

**Length:** ..... 10 to 40 inches (25.4 to 101.6 cm) nominal

**Outside Diameter:** ..... 2.75 inches (7.0 cm) nominal

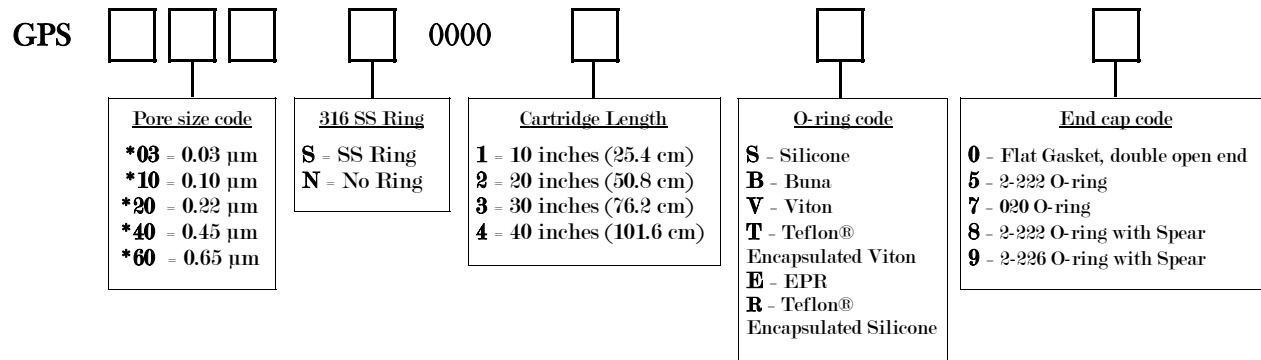
#### Maximum Differential Pressures

**Forward:** ..... 50 psi (3.4 bar) at 20°C.

**Reverse:** ..... 40 psi (2.7 bar) at 20°C.

#### Ordering Information

The cartridge catalog number is made up of several variable characters i.e. pore size, length, O-ring material, and end cap code. For example: a 0.10 µm, 20 inch (50.8 cm) long cartridge with 2-222, Teflon® Encapsulated Viton O-rings, no spear (flat top) and no 316 SS Ring would be designated as: GPS\*10N0000?T5.



#### Construction Materials<sup>1</sup>

**Filtration Media:** ..... Polyethersulfone  
**Filtration Media Support:** ..... Polypropylene  
**End Caps:** ..... Polypropylene  
**Center Core:** ..... Polypropylene  
**Outer support Cage:** ..... Polypropylene  
**O-rings:** Buna, Viton, EPR, Silicone, Teflon®  
 Encapsulated Silicone, Teflon® Encapsulated Viton

<sup>1</sup> All materials of construction are FDA accepted. Final assemblies have been validated to pass USP class 6 Toxicology extractable tests, oxidizable substances for plastics, endotoxin level and other quality tests.

#### Sanitization/Sterilization

**Filtered Hot Water:** ..... 90°C

**Chemical Sanitization :** ..... Industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals. Sanitization protocols designed to extend the useful life of GPS cartridges are available from Critical Process Filtration, Inc.®.

#### Integrity Test Specifications (per 10 inch length) (water wetted membrane)

| Pore Size | Air Diffusion Rate                |
|-----------|-----------------------------------|
| 0.03 µm   | < 55 cc/min at 60 psi (4137 mbar) |
| 0.1 µm    | < 55 cc/min at 48 psi (3307 mbar) |
| 0.22 µm   | < 55 cc/min at 35 psi (2412 mbar) |
| 0.45 µm   | < 55 cc/min at 20 psi (1378 mbar) |
| 0.65 µm   | < 55 cc/min at 15 psi (1044 mbar) |