

## Filter Data Sheet

### *PPM<sub>grade</sub> Polypropylene Membrane Media Filter Cartridges developed for the special needs of the pharmaceutical industry*

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PPM cartridges filters are manufactured for the specified needs of the pharmaceutical industry. Manufactured with inherently hydrophobic Polypropylene Membrane, these cartridges are designed for use in the filtration of aggressive solvents, and as compressed gas and vent filters. Each cartridge module is individually diffusion tested using 60/40 IPA and water before it is released from manufacture. The cartridge surface area, filter core design, pleat configuration and pleat packing density have been optimized to provide increased cartridge life resulting in lower filtration operating costs. Rugged construction ensures repeatable steaming and testing.

#### Dimensions

**Length:** .....10 to 40 inches (25.4 to 101.6 cm) nominal  
**Outside Diameter:** .....2.75 inches (7.0 cm) nominal

#### Flow Rate

The following table represents typical water flow and air flow rates. These values are approximations because of the differences in pressure drop encountered in housings and piping systems. Extrapolation to multiple length cartridges in multi-round housings can be done for sizing purposes. Exact flow rates will be installation dependent.

Pore Size	0.10 µm	0.22 µm
<b>SCFM</b>	>20 SCFM/psid/10 inch cartridge length	>30 SCFM/psid/10 inch cartridge length
<b>GPM</b>	0.75 gpm/psid/10 inch cartridge length	2.75 gpm/psid/10 inch cartridge length

#### Construction Materials

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

#### Sterilization/Sanitization

**Filtered hot water:** .....90°C  
**Autoclave:** .....127°C, 30 min, multiple cycles  
**In-line Steam:** .....135°C, 30 min, multiple cycles  
**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 PPM® cartridges are available from Critical Process Filtration®.

#### Integrity Test Specifications

(water wetted membrane)

Pore Size	Air Diffusion Rate
<b>0.10 µm</b>	≤ 30 cc/min at 40 psi (2756 mbar)
<b>0.22 µm</b>	≤ 30 cc/min at 35 psi (2412 mbar)

#### 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: PPM\*10N00002T5.

