

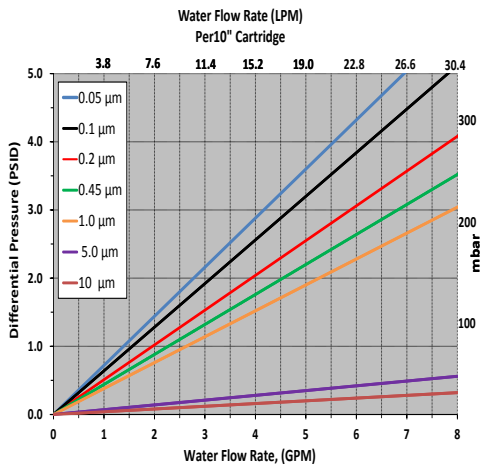
# optimum filter

## GPFA Series Pleated All-Fluoropolymer Cartridges High Purity PTFE Membrane with PFA Hardware

The GPFA all-fluoropolymer filter cartridge series provides superior chemical compatibility, temperature range, with ultra-low extractables for the most demanding needs of the micro-electronics industry. Ideal for aggressive "wet-etch and clean" applications. The PTFE membrane offers high flow rate at low pressure drop, while the PFA440HP hardware exhibits superior chemical resistance and high temperature tolerance. Minimized ionic and TOC extractables are attained through a specialized UPW water flush process. Wet-packing option is available for ease of use in aqueous applications. Available in the full range of micron ratings to suit all applications.



### Flow Rate vs Pressure Drop



### Typical Applications

#### Highly Reactive Chemicals

Acetic Acid (10%)  
Hydrofluoric Acid (50%)  
Hydrogen Peroxide (30%)  
Nitric Acid (conc.)  
Phosphoric Acid (conc.)  
Sulfuric Acid (conc.)  
Ammonium Hydroxide (conc.)  
Potassium Hydroxide (conc.)  
Sodium Hydroxide (conc.)  
TMAH (5%)  
Aqua Regia (HNO<sub>3</sub>:HCl)  
BOE; NH<sub>4</sub>F:HF  
Mixed Acid Etch  
ChromPhos Etch  
Piranha Etch

### Construction Materials

Filtration Media ..... PTFE  
Support Media ..... PFA  
End Caps ..... PFA440HP  
Center Core ..... PFA440HP  
Outer Support Cage ..... PFA440HP  
O-Rings ..... Teflon® Encapsulated Viton®

### Maximum Recommended Operating Conditions

Temperature ..... 365°F (185°C)  
Forward Differential Pressure ..... 60 psi @ 70°F (4.1 bar @ 21°C)  
Reverse Differential Pressure ..... 30 psi @ 70°C (2.0 bar @ 21°C)

### Cleanliness

The Semiconductor (SR) rinse option delivers extraordinary product cleanliness at these typical levels.

- Metals Extractable: <20 ppb total
- Particulate Extractable: ≤2 counts/ml at ≥0.2 µm  
≤1 count/ml at ≥1.0 µm
- TOC Extractable below detection limits

### Ordering Information

Type	Rating (µm)	A	Length	C	End Cap Style	O-Rings	Options
GPFA	0.05	5.0	5" (12.7 cm)		4 = 222 w/Flat Cap	T = Teflon® Encapsulated Viton®	SR = Semiconductor Rinse
	0.1	10.0	10" (25.4 cm)		6 = 226 w/Flat Cap		W = Wet Packed
	0.2		20" (50.8 cm)				
	0.45		30" (76.2 cm)				
	1.0		40" (101.6 cm)				

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.