

# PharmBiologic Solutions, LLC

## Advancing custom solutions

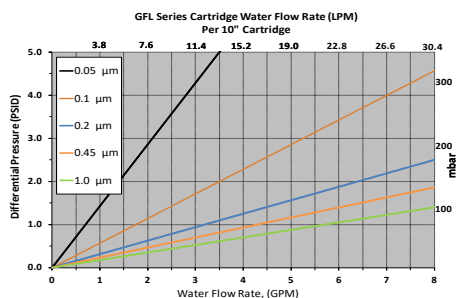


### High Purity - FluoroClear Pleated All-Fluorocarbon

**FluoroClear Cartridges** are designed for highly aggressive wet-etch and cleaning applications. FluoroClear cartridges are constructed with 100% fluorocarbon materials, providing broad chemical compatibility and temperature resistance. The PTFE membrane delivers high flow rates and high purity effluent at low pressure drops. Cartridges are available as flushed & dried or as wet-packed (High Purity DI water/hydrogen peroxide solution). FluoroClear cartridges are manufactured in a cleanroom environment to ensure product cleanliness.



#### Flow Rate vs Pressure Drop



#### Typical Applications

- Wet-etch & cleaning chemicals:
  - Sulfuric Acid
  - Hydrofluoric Acid
  - Phosphoric Acid
  - Nitric Acid
- Photo-resists
- Ozonated Process Streams

#### Ordering Information

GFL	Rating (μ)	A	Length	C	End Cap Style	O-Rings/Gaskets	-	Adders
	0.05		10" (25.4 cm)		2 = DOE Flat Gasket	T = Teflon® Encapsulated Viton®		E = Flushed & Dried
	0.1		20" (50.8 cm)		3 = 222 w/ Fin	Z = Teflon® Encapsulated Silicone		W = Wet-Packed
	0.2		30" (76.2 cm)		4 = 222 w/ Flat Cap			
	0.45		40" (101.6 cm)		6 = 226 w/ Flat Cap			
	1.0				7 = 226 w/ Fin			

#### Construction Materials

**Membrane** ..... PTFE  
**Support Media** ..... ECTFE  
**End Caps** ..... ECTFE  
**Center Core** ..... ECTFE  
**Outer Support Cage** ..... ECTFE  
**O-Rings/Gaskets** ..... Teflon® Encapsulated Viton®

#### Sanitization/Sterilization

FluoroClear cartridges may be sanitized using compatible chemical agents. FluoroClear cartridges may not be autoclaved or steam sterilized.

#### Integrity Testing

$0.05\mu \leq 5 \text{ cc} \setminus \text{min}$  at 40 psig (2.76 bar)  
 $0.1\mu \leq 5 \text{ cc} \setminus \text{min}$  at 40 psig (2.76 bar)  
 $0.2\mu \leq 5 \text{ cc} \setminus \text{min}$  at 30 psig (2.07 bar)  
 $0.45\mu \leq 5 \text{ cc} \setminus \text{min}$  at 20 psig (1.38 bar)  
 $1\mu \leq 5 \text{ cc} \setminus \text{min}$  at 15 psig (1.38 bar)

#### 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** ..... 215°F (102°C)

#### Maximum Differential Pressures

**Forward** ..... 60 PSI (4.14 bar) at 70°C (21°C)  
**Reverse** ..... 30 PSI (2.07 bar) at 70°C (21°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 components meet the specifications for biological safety per USP Class VI – 121°C for plastics.

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.

