

# Proflow™-HE

Pleated hydrophilic PTFE membrane and polypropylene supported cartridges for microelectronic liquid

The Proflow™-HE cartridge is designed for filtration of microelectronic (MiE) fluids. High-purity polypropylene and hydrophilic PTFE provide an economical alternative for the filtration of various MiE chemicals. The hydrophilic nature of the PTFE membrane does not require pre-wetting for aqueous based liquids typically necessitated with standard PTFE membranes. This can reduce total operating cost and improve process up-times.

Proflow-HE is available in both Standard and SELECT pleated versions. SELECT pleating allows for additional membrane surface areas for exceptional flow rates and on-stream life.

Proflow-HE cartridges are manufactured in an ISO 9008 certified Class 10,000 cleanroom and flushed with ultra-high-purity deionized water and 100% integrity tested as well as serialized to provide complete product purity, reliability and traceability.



## Contact Information

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## Applications

Recommended applications include, but are not limited to:

- Acids & Bases
- Extraction/crystallization solvents
- Hot ultra-high-purity deionized water
- Solvent filtration

## Markets

Proflow-HE is well-suited for the manufacturing of:

- LCD Displays
- Solar Panels
- Bulk Chemicals
- Fine Chemical Filtration

## Benefits

- Hydrophilic membrane (pre-wetting not required)
- Broad chemical compatibility
- Long service life minimizes change-out frequency
- Low differential pressure reduces energy costs
- Top-performing retention efficiency
- Very low metals and organic extractables
- Quick rinse up-time
- Integrity-tested for quality assurance

**ENGINEERING YOUR SUCCESS.**

# Proflow™ -HE

## SPECIFICATIONS

### Materials of Construction

Membrane: Hydrophilic PTFE

Support layers: Polypropylene

Structure: Polypropylene

Materials are thermally bonded, for maximum assurance of filter integrity and elimination of bonding or sealing compounds. Modules and final filter assemblies are flushed with 18-meg-ohm-cm high purity water, to provide extremely low extractables levels.

### Effective Filtration Area

Standard Pleating: 7.2 ft<sup>2</sup>

SELECT Pleating: 11.4 ft<sup>2</sup>

\* Per 10-inch (250mm) cartridges

### Maximum Differential Pressure

Forward:

70 psid (4.8 bar) @ 75°F (24°C)

40 psid (2.8 bar) @ 180°F (82°C)

Reverse:

40 psid (2.8 bar) @ 75°F (24°C)

### Cleanliness (Particle Shedding)

20 gal rinse-up at 1gpm achieves <1 particle/ml @ 0.2 µm

### Chemical Compatibility

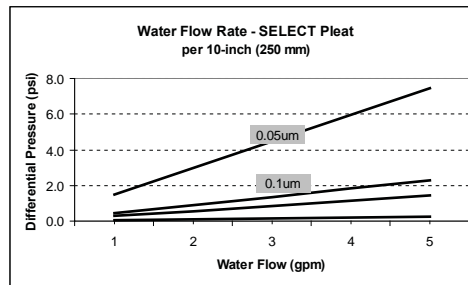
Compatible with many water based acids, basis & solvent solutions.

Contact dhP-N.A. Technical Services for details.

## Performance Attributes

Water flow rates, Typical*			
Type	Micron	gpm/psid	lpm/100mbar
SELECT	0.05	0.65	3.6
	0.1	2.2	12
	0.2	3.5	19
	0.5	7.3	40
	1.0	12.7	70
	3.0	20.0	110
	10.0	40.0	220
Standard	0.05	0.45	2.5
	0.1	1.3	7.1
	0.2	2.2	12
	0.5	4.6	25
	1.0	9.8	54
	3.0	14.0	77
	10.0	25.0	140

\* Per 10-inch (250mm) cartridge equivalent.



\*Liquids with a viscosity of 1 cp

## Ordering Information

Each cartridge is identified with a product number, pore size and lot number for traceability.

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STYLE		INSERT STYLE		END FITTING		NOMINAL LENGTH		FILTER RATING		O-RINGS			
CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	LENGTH	CODE	MICRON	CODE	MATERIAL		
PS	SELECT	1	None (Std.)	2	226/Flat	10	10" (250mm)	925	0.05	1	EPDM		
34	Standard	5	Encapsulated Stainless Steel	3	222/Flat	20	20" (500mm)	001	0.1	2	Silicone (recommended)		
		6	Encapsulated Polysulfone (Std.)	7	226/Fin	30	30" (750mm)	002	0.2	4	Viton®		
		A	½" Shortened on 222fitting	8	222/Fin	40	40" (1000mm)	005	0.5	5	Encapsulated Viton®		
								010	1.0	6	Encapsulated Silicone		
								030	3.0				
								100	10.0				

Specifications are subject to change without notification.  
 For User Responsibility Statement, see [www.parker.com/safety](http://www.parker.com/safety)  
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