

Polyflow® Membrane

Polypropylene membrane cartridges
for microelectronics

Polyflow® Membrane cartridges are optimized for use in microelectronics applications such as bulk chemicals and photoresists. The all-polypropylene construction is an economical alternative to fluoropolymer-based cartridges.

Every cartridge is fabricated in a clean room environment, pre-flushed with 18 megohm-cm ultrapure DI water, and 100% integrity tested in an ISO-certified facility.



Contact Information

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Benefits

- High-retention membrane
- Wide range of configurations and ratings
- 100% integrity tested

Applications

- Bulk photoresist
- Bulk electronics grade chemicals



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Polyflow[®] Membrane

SPECIFICATIONS

Materials of Construction

Membrane: Polypropylene
 Support layers: Polypropylene
 Structure: Polypropylene
 All components are thermally bonded to ensure integrity and to reduce extractables.

TOC/Resistivity Rinse-up (wet-packed)

TOC rinse-up to background plus 5ppb of feed after 40gal @ 1gpm.

Resistivity rinse-up to background minus 0.2megohm-cm of feed after 40gal @ 1gpm.

Effective Filtration Area

7.7ft² (0.72m²) 0.04 pore size per 10" (250mm) cartridge

6.6ft² (0.61m²) 0.07 pore size per 10" (250mm) cartridge*

7.7ft² (0.72m²) 0.1 pore size per 10" (250mm) cartridge

7.7ft² (0.72m²) 0.2 pore size per 10" (250mm) cartridge

* Double layers of membrane

Metals Extractables*

<50ppb (total)
 *In a 10% HNO₃ extraction

Maximum Differential Pressure/Temperature

Forward: 80psid (5.5bar) @ 75°F (24°C)*
 40psid (2.8bar) @ 180°F (82°C)

Reverse: 40psid (2.8bar) @ 75°F (24°C)
 60 psid (4.1 Bar) @ 75°F for 0.04µm

Cleanliness (particle shedding)

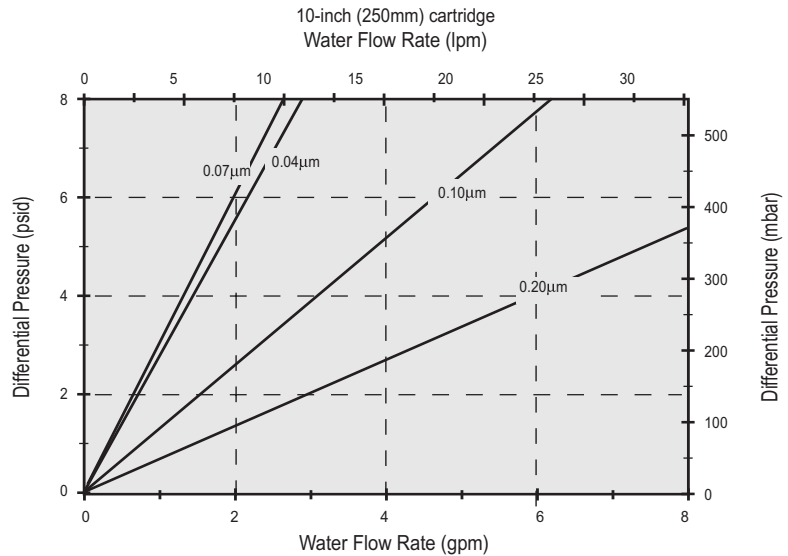
Wet-packed: <1 particles/ml >0.2µm after 10gal at 1gpm

Data from bag open and installed, no additional installation flushing.

Performance Attributes

| Water flow rates, Typical* | | |
|----------------------------|----------|-------------|
| Micron | gpm/psid | lpm/100mbar |
| 0.04 | 0.41 | 2.2 |
| 0.07 | 0.35 | 1.9 |
| 0.1 | 0.7 | 3.8 |
| 0.2 | 1.8 | 10 |

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



Ordering Information

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

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| Styles | | End Fitting | | Nominal Length | | | Filter Rating | | Gasket/O-Rings | | Thickness (Gaskets Only) | | | Treatment | |
|--------|-------------------------------|-------------|--------------------------|----------------|--------|------|---------------|--------|----------------|-------------------------------------|--------------------------|------------|----|-----------|------------|
| CODE | DESCRIPTION | CODE | DESCRIPTION | CODE | INCHES | mm | CODE | MICRON | CODE | MATERIAL | CODE | THICKNESS | | CODE | OPTIONS |
| | | | | | | | | | | | | INCHES | mm | | |
| 1 | No Insert (Std.) | 0 | DOE (CUNO [®]) | 10 | 10" | 250 | 924 | 0.04 | 0 | Buna-N | 1 | 0.200" | 5 | Blank | Standard |
| 5 | Encapsulated Stainless Steel | 1 | DOE | 20 | 20" | 500 | 001 | 0.1 | 1 | EPDM | 2 | 0.125" | 3 | EW | Wet Packed |
| | | 2 | 226 Flat | 30 | 30" | 750 | 002 | 0.2 | 2 | Silicone | 4 | (1) 0.200" | 5 | | |
| 6 | Encapsulated Polysulfone | 3 | 222 Flat | 40 | 40" | 1000 | 101 | 0.07 | 4 | Viton [®] | | (1) 0.125" | 3 | | |
| A | 1/2" Shortened on 222 Fitting | 7 | 226 Fin | | | | | | 5* | FEP Encapsulated Viton [®] | N | No Gasket | | | |
| | | 8 | 222 Fin | | | | | | N | None | | | | | |

*O-Rings only

Specifications are subject to change without notification.
 For User Responsibility Statement, see www.parker.com/safety
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DS_ME_Polyflow Membrane Rev. A



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