

***High Surface Area Polypropylene Microfiber Cartridges for Critical Processes***

**Descriptio**

POLY-CLEAR Series filter cartridges deliver high efficiency and consistent filtration of fluids in a wide range of critical applications. POLY-CLEAR filter cartridges are constructed of pleated melt blown filter media that provides absolute removal of particles from 0.6 to 50 µm. The high surface area POLY-CLEAR filters ensure long service life and low initial pressure drops.

All cartridge hardware components are high purity polypropylene materials for use in critical process applications. POLY-CLEAR cartridges are manufactured and assembled in a clean room environment to minimize the possibility of contamination. POLY-CLEAR Series cartridges are available in a wide range of configurations to fit most commercially available filter housings.

**Benefits**

- Filter cartridges are constructed of microfiber melt blown media to provide high area, surfactant-free and non-fiber releasing filtration.
- Multi-layered filter media is optimized for high efficiency particle removal and high contaminant holding capacity resulting in longer on-stream life cycles.
- 100% polypropylene materials of construction provide wide chemical compatibility with acids, bases, salts, and most organic solvents. The high purity construction assures quick rinse up in high purity applications.
- All materials of construction are FDA-listed for food and beverage contact according to CFR Title 21 and comply with USP Class VI toxicity tests for plastics.
- Durable, thermal bonded construction ensures cartridge integrity under severe operating conditions. No adhesives, binders, lubricants, or anti-static agents are used in the manufacturing process.
- Pharmaceutical grade offers 100% lot traceability and can be autoclaved or steam sterilized.



**Applications**

- Food and Beverage Processing
- High Purity Chemicals
- RO Pretreatment
- Cosmetics and Fragrances
- Chemical Mechanical Polishing
- Photographic Solutions
- Metal Finishing/Plating Solutions
- Solvent Filtration
- Paints and Coatings

## Materials of Construction

<b>Media</b>	Polypropylene
<b>Support Layers</b>	Polypropylene
<b>Core, Cage, End Caps</b>	Polypropylene
<b>Gaskets/O-Rings</b>	Ethylene Propylene, Silicone, Buna-N, Neoprene, Teflon®, Viton
<b>Biosafety</b>	All components meet FDA requirements for food and beverage contact per 21 CFR. All components meet USP Biological Resistivity, <i>in vivo</i> , for Class VI-121° plastics.
<b>Outside Diameter</b>	2.7" (6.9 cm) (nominal)
<b>Lengths (nominal)</b>	10, 20, 30, 40" (25.4, 50.8, 76.2, 102 cm)

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Poly-Clear is a trademark of Clarcor, Inc.*

## Performance Specifications

<b>Retention Ratings</b>	0.6, 1.2, 2.5, 5.0, 10, 20, 50 µm absolute
<b>Liquid Removal Efficiency</b> <sup>(1)</sup>	

<b>Grade</b>	<b>99.99%</b>	<b>99.00%</b>	<b>90.00%</b>
006	0.6	0.5	0.4
012	1.2	0.8	0.6
025	2.5	1.2	0.8
050	5.0	3.0	2.5
100	10.0	6.0	5.0
200	20.0	15.0	10.0
500	50.0	45.0	40.0

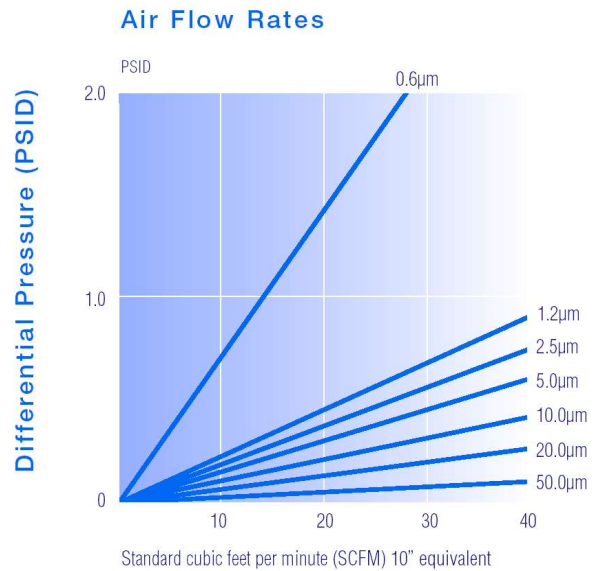
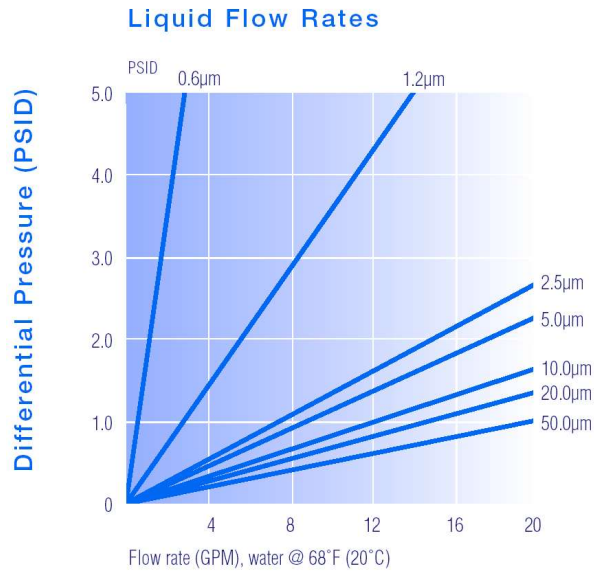
<b>Differential Pressure</b>	to 80 psid (5.5 bar) @ 70° F (21° C)
<b>Forward</b>	to 35 psid (2.4 bar) @ 175° F (80° C)
<b>Reverse</b>	to 50 psid (3.4 bar) @ 70° F (21° C)

<b>Maximum Operating Temperature</b>	185° F (85° C)
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<b>Sterilization Parameters</b>	Maximum 10 cycles at 250° F (121° C) for 30 minutes at <5 psid Minimum 1 cycle at 259° F (126° C) for 30 minutes at <5 psid
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*(1) Based on modified ASTM F795 single pass destructive challenge test.*

## Flow Rates vs Differential Pressure



## Cartridge Ordering Information

Cartridge Media Type	Grade	Series	Nominal Length	Cartridge Style	Gasket or O-Ring	Utilization
P	6	S	20	3	3	N
Polypropylene	006 = 0.6 µm 012 = 1.2 µm 025 = 2.5 µm 050 = 5.0 µm 100 = 10.0 µm 200 = 20.0 µm 500 = 50.0 µm	B = Beverage E = Electronics S = Standard P = Pharmaceutical	A = 10" B = 20" C = 30" D = 40"	2 = DOE 3 = 222 O-Ring/Flat 4 = Internal 020 Ring/Flat 6 = DOE/Internal 120 Ring 6x = SOE Internal 213 O-Ring 7 = 226 O-Ring/Fin 7a = 226 O-Ring/Flat 8 = 222 O-Ring/Fin	01 = EPR 02 = Neoprene 03 = Silicone 04 = Buna-N 08 = Viton 09 = Teflon Gasket 11 = Teflon/Viton	N = Non-Steam Sterilizable S = Steam Sterilizable