

OMNI-CLEAR™ Series

High Surface Area Pleated Filter Cartridges Utilizing Polyethersulfone Membrane



Description

OMNI-CLEAR pleated cartridges are manufactured with advanced hydrophilic polyethersulfone membranes and all polypropylene components. The low protein binding nature of the filter membrane ensures suitability in many critical applications. The PES membrane provides sharp particle cut-offs and is compatible with a broad range of chemicals and pH extremes. OMNI-CLEAR cartridges provide reliable particle retention and enhanced throughput for superior performance in critical applications.

OMNI-CLEAR Series filter cartridges are constructed and assembled in a clean room environment and are 100% traceable. The cartridges are steam sterilizable and can withstand repeated autoclaving cycles, following standard USP guidelines. OMNI-CLEAR filter cartridges are biologically safe and meet the requirements of USP Class VI tests for plastics. This range of filter cartridges is available in a wide range of configurations to fit most commercially available filter housings.

Benefits

- High surface area filter cartridges, constructed of pleated polyethersulfone membranes, provide absolute particle retention and long on-stream life cycles.
- Absolute removal ratings available from 0.03 to 1.2 µm.
- 100% polypropylene materials of construction provide wide chemical compatibility in most applications with no leachables or extractables.
- All cartridges are constructed and assembled in a clean room environment to ensure minimal particle contamination.
- Cartridges are sealed using an advanced thermal bonding process and flushed with ultrapure water to ensure the lowest level of extractables.
- Each cartridge is stamped with product and lot number for identification and 100% traceability.
- Pharmaceutical grade cartridges are manufactured to meet the stringent needs of biopharmaceutical applications.
- Beverage grade cartridges are manufactured to meet the high throughput requirements of the beverage industry.

Applications

- High Purity Water
- Large and Small Volume Parentals
- Acids, Bases and Oxidants
- Inks and Dyes
- High Purity Chemicals, Solvents and Reagents
- Fragrances
- Ophthalmic Solutions
- Wines
- High Fructose Corn Syrup and Sweeteners
- Bottled Water

Performance Specifications

Micron Ratings	0.03, 0.1, 0.2, 0.45, 0.65, 0.8, 1.2 μm absolute
Differential Pressure	to 60 psid (4.08 bar) @ 68° F (20° C) to 30 psid (2.04 bar) @ 140° F (60° C)
Sterilization	OMNI-CLEAR cartridges may be autoclaved for 30 minutes at 121° C under no end loading conditions
Toxicity	OMNI-CLEAR Pharmaceutical Series filter media comply with USP XXII Standards for Class VI-121 Plastics. All materials are FDA listed for Food and Beverage contact.

Materials of Construction

Media	Polyethersulfone Membrane
Center Core	Polypropylene
Cage	Polypropylene
End Caps	Polypropylene
Internal Support Ring	Stainless Steel
Gaskets/O-Rings	Ethylene Propylene, Silicone, Nitrile, Viton®, Teflon®
Outside Diameter (nominal)	2.7" (6.9 cm)
Lengths (nominal)	10, 20, 30, 40" (25.4, 50.8, 76.2, 102 cm)

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Flow Characteristics

Filter Grade	Water Flow per 1 psid (gpm/10" (25.4 cm) equivalent)	Integrity Test Diffusive Flow per 10" (25.4 cm) equivalent
SINGLE LAYER		
S000A	0.17	NA
S001A	0.6	NA
S002A	2.4	NA
S004A	4.2	NA
S006A	7.3	NA
S008A	7.5	NA
S000Z	0.2	NA
S001Z	0.75	NA
S002Z	2.8	NA
S004Z	5.5	NA
S006Z	8.0	NA
S008Z	8.3	NA

Filter Grade	Water Flow per 1 psid (gpm/10" (25.4 cm) equivalent)	Integrity Test Diffusive Flow per 10" (25.4 cm) equivalent
DOUBLE LAYER		
S001A	0.2	14 mls/min @ 70 psi
S002A	1.0	12 mls/min @ 45 psi
S004A	2.0	6 mls/min @ 28 psi
S006A	2.75	20 mls/min @ 14 psi
S008A	2.9	20 mls/min @ 12 psi
S001Z	0.35	18 mls/min @ 70 psi
S002Z	1.25	12 mls/min @ 45 psi
S004Z	2.5	6 mls/min @ 28 psi
S006Z	3.4	20 mls/min @ 14 psi
S008Z	3.6	20 mls/min @ 12 psi

Cartridge Ordering Information

Cartridge Media Type	Grade	Filter Area	Series	Layer	Nominal Length	Cartridge Style	Gasket or O-Ring	Utilization
S	001	A	S	1	A	3	03	N
S = Polyethersulfone Membrane	000 = 0.03 μm 001 = 0.1 μm 002 = 0.2 μm 004 = 0.45 μm 006 = 0.65 μm 008 = 0.8 μm 012 = 1.2 μm	A = Standard Z = High Flow	S = Standard P = Pharmaceutical B = Beverage E = Electronics	1 = Single 2 = Double	A = 10" B = 20" C = 30" D = 40"	2 = DOE 3 = 222/Flat 4 = Internal 020 Ring/Flat 5 = 218/216 Step/Fin 6 = DOE/Internal 120 Ring 7 = 226/Fin 8 = 222/Fin	01 = EPR 03 = Silicone 04 = Nitrile 08 = Viton 09 = Teflon Gasket 11 = Teflon/Viton	N = Non-Steam Sterilizable S = Steam Sterilizable

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