

ZTEC™ P Series Filter Cartridges

Pleated Polyethersulfone (PES) Membrane for Sterile Filtration

ZTEC P Sterilizing Grade membrane cartridges are validated for complete bacterial retention to yield product sterility in biopharmaceutical final filtration applications. The naturally hydrophilic and low protein binding characteristics of polyethersulfone membrane ensure maximum transmission of active ingredients making it ideal for a wide range of pharmaceutical and biological liquid applications, including the filtration of therapeutics, vaccines, antibiotics, bulk pharmaceutical and other critical biotechnology products. The double-layer PES 0.2 micron membrane filters are manufactured in a cleanroom environment, and integrity tested before shipment to assure consistent performance and quality.

Features–Benefits

- Manufactured in an ISO Class 7 Cleanroom Environment
- 100% flushed with ultrapure DI water
- Meets ASTM Standards for Sterility
- Repeatably Steamable/Sanitizable
- 100% Integrity tested prior to release
- Pore size, lot and serial number are stamped on each filter element for identification and traceability
- Complete validation guide available

Product Specifications

Media:	Asymmetric Polyethersulfone membrane
Inner core, end caps, cage:	Polypropylene
Support layers:	Spunbonded Polypropylene
Gaskets/O-Rings:	Buna-N, EPDM, Silicone, Viton, Teflon Encapsulated Viton O-Rings
Micron ratings:	0.2 µm

Dimensions

Nominal lengths:	10", 20", 30", 40" (25.4, 50.8, 76.2, 101.6 cm)
Outside diameter:	2.7" (6.9 cm)
Inside diameter:	1.0" (2.54 cm)
Surface area:	6.8 ft ² . (0.63m ²) per 10 inch element

Operating Parameters

Maximum sustained operating temperature:	180°F (82°C) at 20 psid (1.38 bar)
Maximum differential pressure:	60 psid @ 80°F (4.14bar @ 27°C) 30 psid @ 160°F (2.07 bar @ 71°C) 15 psid @ 200°F (1.03 bar @ 93.3°C)
Maximum reverse differential pressure:	40 psid @ 70°F (2.8 bar @ 21°C)
Recommended change-out pressure:	35 psid (2.4 bar)



Certifications

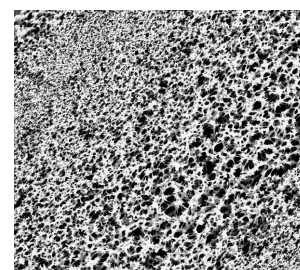
USP Class VI - Meets USP Class VI Biological Test for Plastics.

FDA Listed Materials - All Materials comply with FDA Title 21 of the Code of Federal Regulations Sections 174.5, 177.1520, and 177.2440 as applicable for food and beverage contact.

European Directive for Direct Food Contact - European Regulations No 1935/2004 and European directive 82/711/EEC: Tested for migration behavior in direct food contact. Minimal rinse required for use. Data available upon request.

Typical Applications

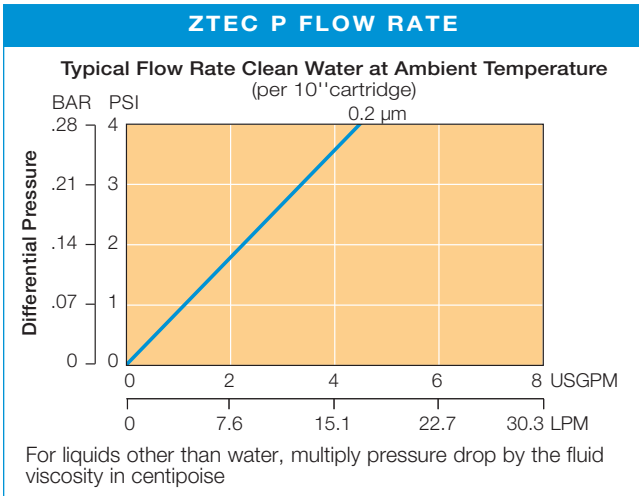
- Diagnostics
- Ophthalmic Solutions
- Culture Media
- Reagent Chemicals
- LVPs
- Buffers
- Vaccines



ZTEC P Nomenclature Information

ZTEC P	0.2	-20	P2	S
Filter Type ZTEC P Series Filters		Nominal Length (inches) -10 -20 -30 -40	End Configuration P2 226/Flat Single Open End P3 222/Flat Single Open End P7 226/Fin Single Open End P8 222/Fin Single Open End	Gasket or O-Ring S Silicone B Buna-N E EPDM V Viton T Teflon endcap. Viton (O-Rings only)
Retention Rating (microns) 0.2				

Example: ZTECP 0.2-20P2S



Performance Specifications

Hot DI Water

Filter cartridge will withstand temperatures of 185°F (85°C) for up to 30 consecutive minutes.

Cleaning/Sanitization

Compatible with most common chemical cleaning, sanitizing and sterilizing agents and with pH range from 1–14. Consult factory for specific compatibility information.

Steam/Autoclave

Cartridges may be steamed or autoclaved for at least 50 thirty minute cycles @ 275°F (135°C).

Typical Bacterial Retention Performance

Cartridges have been validated for the complete retention of *Brevundimonas diminuta* at a challenge level of 10⁷ organisms/cm² as prescribed in ASTM 838-05.

Integrity Test Specifications

Minimum Bubble Point values and maximum Diffusive Air Flow (per 10-inch cartridge) values for ZTEC-P filters wet with water:

Pore Size	Bubble Point	Diffusive Air Flow
0.2 µm:	≥40 psig (2.8 bar)	≤ 30 cc/min @ 32 psig (2.2 bar)

DISTRIBUTED BY:



For more information

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