Filtersource.com Inc.
A Trumpler-Clancy brand

ZTEC™ P Series Filter Cartridges

Pleated Polyethersulfone (PES) Membrane for Sterile Filtration

Product Specifications

Media: Asymmetric Polyethersulfone Membrane

Inner core, end caps, cage: Polypropylene

Support layers: Spunbonded Polypropylene

O-Rings:
Buna-N, EPDM, Silicone, Teflon Encapsulated Viton O-Rings, Viton

Micron rating: 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 (0.63 m^2) per 10" element

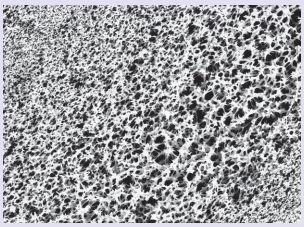
Operating Parameters

Maximum sustained operating temperature:
176°F (80°C) at 20 psid (1.38 bar)

Maximum differential pressure:
80 psid @ 70°F (4.14 bar @ 21°C)
40 psid @ 160°F (2.8 bar @ 71°C)

Maximum reverse differential pressure:
40 psid @ 70°F (2.8 bar @ 21°C)

Recommended change-out pressure:
35 psid (2.4 bar)



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

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 Food Contact: European Regulation No. 1935/2004 and European Regulation 10/2011: Tested for migration behavior and is suitable for contact with all kinds of foodstuffs with minimal rinse-up. Data available upon request.

TYPICAL APPLICATIONS

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

PERFORMANCE SPECIFICATIONS

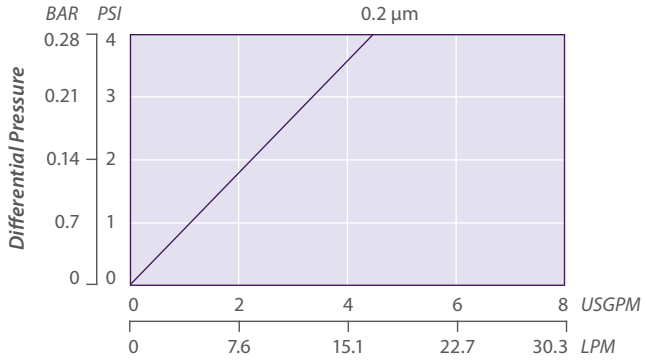
- Hot DI Water: Filter cartridge will withstand temperatures of 185°F (85°C) for up to 30 consecutive minutes.
- Cleaning/Sanitization: Compatible with most common chemical cleaning, sanitizing and sterilizing agents and with pH range from 1–14. Consult factory for specific compatibility information.
- 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 10^7 organisms/cm^2 as prescribed in ASTM 838-05.

ZTEC P NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (inches)	End Configuration	Gasket or O-Ring
ZTEC P Series	**0.2**	**–10** **–30** **–20** **–40**	**P2** 226/Flat Single Open End **P3** 222/Flat Single Open End **P7** 226/Fin Single Open End **P8** 222/Fin Single Open End	**B** Buna-N **E** EPDM **S** Silicone **T** Teflon encap. Viton (O-Rings only) **V** Viton
Example: ZTEC P 0.2–20 P2S				
ZTEC P	0.2	–20	P2	S

ZTEC P FLOW RATE

Typical Flow Rate Clean Water at Ambient Temperature
(per 10" cartridge)



For liquids other than water, multiply pressure drop by the fluid viscosity in centipoise

INTEGRITY TEST SPECIFICATIONS

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)