



Filtration | Separation | Purification

ZTEC™-B Polyethersulfone Membrane Cartridge Filters

Pleated Polyethersulfone (PES) Membrane for Bioburden Reduction in Beverages and Biopharmaceuticals

ZTEC-B Bioburden Reduction grade membrane cartridges provide consistent performance for bioburden reduction and particle removal across a wide range of beverage, pharmaceutical and biological fluids. The naturally hydrophilic PES membrane filters provide exceptional flow rates, long on-stream life, broad chemical compatibility and have no added surfactants to contribute to extractables. The cartridges are integrity testable and steamable to assure reliable service in critical applications.

Filter Features-Benefits

- Manufactured in an ISO Class 7 Cleanroom Environment
- 100% flushed with 18 MΩ-cm DI water and integrity tested
- Meets USP Class VI Biological Test for Plastics
- All materials are FDA listed for food and beverage contact
- Repeatably Steamable/Sanitizable
- High retentions up to 10⁷/cm² challenged for bacteria and yeast
- Pore size, lot and serial number are stamped on each filter element for identification and traceability

Typical Applications

- Bottled Water • Ophthalmic Solutions • Culture Media
- Reagent Chemicals • LVPs • Buffers • Juices

Filter 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, 0.45 μm, 0.65 μm

Dimensions and Operating Parameters

Nominal lengths:	9.75" 10" 20" 30" 40" (24.7, 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:	7.6 ft ² . (0.7m ²) per 10 inch element
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)



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

- 0.2 μm: LRV for *B. diminuta* ≥ 7.8
- 0.45 μm: LRV for *S. marcescens* ≥ 8.5
- 0.65 μm: LRV for *S. cerevisiae* ≥ 11 LRV for *L. brevis* ≥ 7.6

Integrity Test Specifications

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

Pore Size	Bubble Point	Diffusive Air Flow
0.2 μm:	≥ 38psig (2.6 bar)	≤ 35cc/min @ 30psig (2.1 bar)
0.45 μm:	≥ 25psig (1.7 bar)	≤ 35cc/min @ 20psig (1.4 bar)
0.65 μm:	≥ 18psig (1.2 bar)	≤ 35cc/min @ 15psig (1.0 bar)

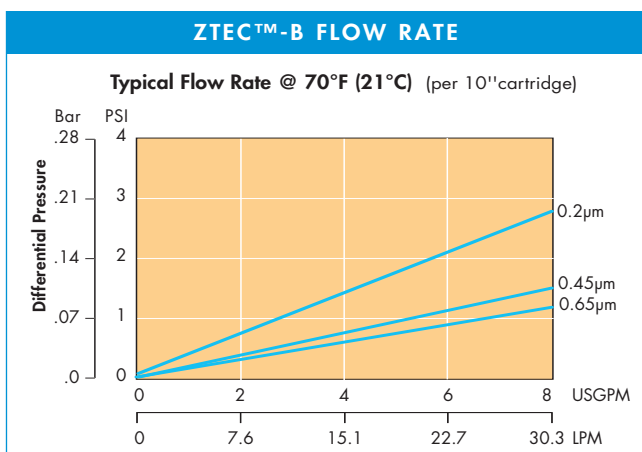
FDA Listed Materials

All materials comply with FDA title 21 of the Code of Federal Regulations Sections 174.5, as applicable for food and beverage contact.

ZTEC-B Nomenclature Information

<p style="text-align: center;">ZTECB</p> <p>Filter Type ZTEC-B Series Filters</p>	<p>0.2</p>	<p>-20</p> <p>Nominal Length (inches) -9.75 -10 -20 -30 -40</p>	<p>P2</p>	<p>E</p> <p>Gasket or O-Ring S Silicone B Buna-N E EPDM V Viton T Teflon encap. Viton (O-Rings only)</p>
<p>Retention Rating (microns) 0.2 0.45 0.65</p>			<p>End Configuration P Double Open End P2 226/Flat Single Open End P3 222/Flat Single Open End P7 226/Fin Single Open End P8 222/Fin Single Open End AM Single open end, internal O-Ring</p>	

Example: ZTECB 0.2-20 P2E



For more information

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