

ZTEC™ WB Series Filter Cartridges

Pleated Polyethersulfone (PES) Membrane for Critical Filtration in Beverage Applications

Protect your beverage from spoilage. ZTEC WB cartridge filters utilize a special polyethersulfone membrane to provide consistent removal of spoilage organisms and inorganic particulate. The product offers excellent retention efficiency and extended on-stream life making it an ideal filter for the clarification of beer, wine and bottled water. The PES membrane, available from 0.2 to 0.65 µm pore sizes, is designed to meet and surpass the filtration criteria necessary to maintain product quality and characteristics. Produced in an ISO Class 7 cleanroom, the cartridges are integrity tested during production to assure performance and consistency.

Features–Benefits

- Manufactured in an ISO Class 7 Cleanroom Environment
- 100% flushed with ultrapure DI water and integrity tested
- Low adsorption of protein, color and flavor components
- Steamable/sanitizable for cleaning and reuse
- High log reduction values for spoilage organisms
- PES membrane provides high capacity contaminant loading
- Complete qualification guide available
- Quick wet treatment 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 only)
Micron ratings:	0.2, 0.45, 0.65µm

Dimensions

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" element

Operating Parameters

Maximum sustained operating temperature:	176°F (80°C) at 20 psid (1.38 bar)
Maximum differential pressure:	80 psid @ 70°F (5.5 bar @ 21°C) 40 psid @ 176°F (2.8 bar @ 80°C)
Maximum reverse differential pressure:	40 psid @ 70°F (2.8 bar @ 21°C)
Recommended change-out pressure:	35 psid (2.4 bar)



Certifications

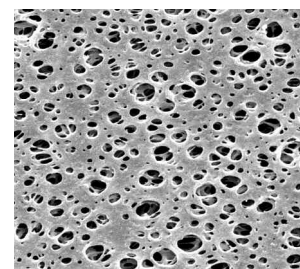
USP Class VI - Meets USP Class VI Biological Test for Plastics.

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

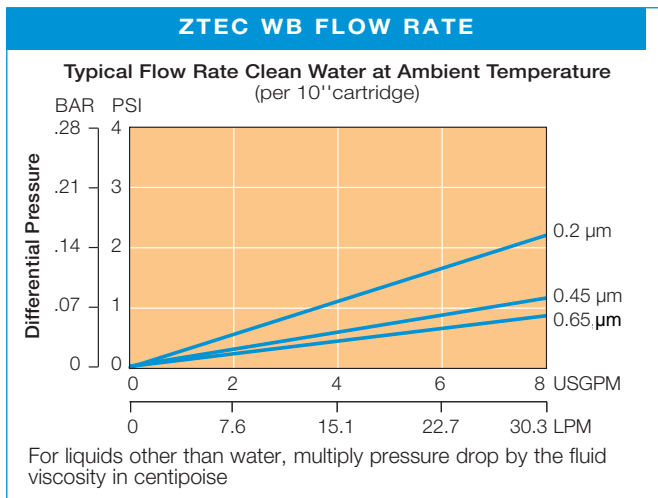
- White Wine
- Red Wine
- Sparkling Wine
- Wine/Malt Coolers
- Champagne
- Distilled Spirits
- Bottled Water
- Beer



ZTEC WB Nomenclature Information

ZTEC WB	0.45	-20	P2	S	-QW
Filter Type ZTEC WB Series Filters		Nominal Length (inches) -5 -9.75 -10 -20 -30 -40	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		Quickwet treatment
Retention Rating (microns) 0.2 0.45 0.65				Gasket or O-Ring S Silicone B Buna-N E EPDM V Viton T Teflon endcap. Viton (O-Rings only)	

Example: ZTECWB 0.45-20P2E



ZTEC is a trademark of Graver Technologies, LLC.

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

- 0.20µm: LRV for *Pseudomon aeruginosa* ≥ 11
- 0.45µm: LRV for *Lactobacillus brevis* ≥ 7.6
- 0.45µm: LRV for *Oenococcus oeni* ≥ 10.0
- 0.45µm: LRV for *S. cerevisiae* ≥ 11
- 0.65µm: LRV for *S. cerevisiae* ≥ 8.7
- 1.2µm: LRV for *S. cerevisiae* ≥ 8

Integrity Test Specifications

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

Pore Size	Bubble Point	Diffusive Air Flow
0.20 µm:	≥ 30 psig (2.1 bar)	≤ 35 cc/min @ 25 psig (1.7 bar)
0.45 µm:	≥ 20 psig (1.4 bar)	≤ 35 cc/min @ 16 psig (1.1 bar)
0.65 µm:	≥ 17 psig (1.2 bar)	≤ 35 cc/min @ 14 psig (1.0 bar)
1.2 µm:	≥ 13 psig (0.9 bar)	≤ 35 cc/min @ 11 psig (0.8 bar)