



Graver Technologies

FILTRATION | SEPARATION | PURIFICATION



ZTEC™ WB Series Filter Cartridges

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

Product Specifications

Media: Asymmetric
Polyethersulfone Membrane

Inner core, end caps, cage: Polypropylene

Support layers: Spunbonded
Polypropylene

Gaskets/O-Rings:

Buna-N, EPDM, Silicone, Teflon
Encapsulated Viton (O-Rings only),
Teflon (gaskets), Viton

O-Ring Insert: PBT

Micron ratings: 0.2, 0.45, 0.65 μ m

Dimensions

Nominal lengths:

9.75" 10" 20" 30" 40"
24.8 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 ft² (0.7 m²)
per 10" element

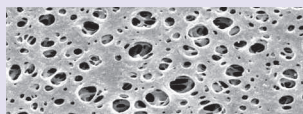
Operating Parameters

**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 @ 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)



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. PES membrane available with 0.2, 0.45 and 0.65 μ m 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
- Every cartridge comes standard with an embedded O-ring support ring

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 (polypropylene), and 177.2440 (PES Resin) 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

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

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).

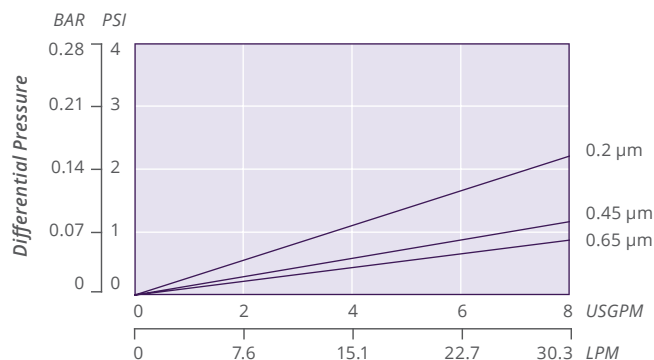
ZTEC WB NOMENCLATURE INFORMATION

Filter Type	Retention Rating (microns)	Nominal Length (inches)	End Configuration	Gasket or O-Ring	Options
ZTEC WB Series	0.2	–5 –20	P Double Open End	B Buna-N	–QW Quick Wet Treatment
	0.45	–9.75* –30	P2 226/Flat Single Open End	E EPDM	
	0.65	–10 –40	P3 222/Flat Single Open End	S Silicone	
			P7 226/Fin Single Open End	T Teflon encap. Viton (O-Rings only)	
			P8 222/Fin Single Open End	T Teflon (gaskets)	
Example: ZTEC WB 0.45–20P2E–QW			AM Single Open End, Internal O-Ring	V Viton	
ZTEC WB	0.45	–20	P2	E	–QW

*Available only for DOE (P) configuration

ZTEC WB 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

TYPICAL BACTERIAL RETENTION

0.2 µm	LRV for <i>Pseudomonas aeruginosa</i> ≥ 7.6
0.45 µm	LRV for <i>Lactobacillus brevis</i> ≥ 7.52
0.65 µm	LRV for <i>S. cerevisiae</i> ≥ 10.9

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
0.2 µm	≥ 26 psig (2.1 bar)	≤ 35 cc/min @ 21 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)

FOR MORE INFORMATION

GTX-296 3-24

DISTRIBUTED BY

Customer Service/Technical Support: 1-888-353-0303

China: +86-21-5238-6576 Asia: +65-9671-9966

All information and recommendations appearing in this bulletin concerning the use of products described herein are based on tests believed to be reliable. However, it is the user's responsibility to determine the suitability for his own use of such products. Since the actual use by others is beyond our control, no guarantee, expressed or implied, is made by Graver Technologies as to the effects of such use or the results to be obtained. Graver Technologies assumes no liability arising out of the use by others of such products. Nor is the information herein to be construed as absolutely complete, since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations. TPE is a trademark of Graver Technologies, LLC.



Graver Technologies | 302-731-1700 | 800-249-1990
info@gravertech.com | www.gravertech.com

A member of The Marmon Group—A Berkshire Hathaway Company