

BEVPURE® PV FILTER CARTRIDGES

HYDROPHILIC PVDF MEMBRANE FILTERS DESIGNED FOR HIGH THROUGHPUT, STERILIZED FILTRATION

BevPure® PV Filter Cartridges are made of unique hydrophilic polyvinylidene fluoride (PVDF) membrane characterized by high throughput and low binding. These filters are suitable for the sterilized filtration of a wide range of beverage applications.

FEATURE	BENEFIT
Hydrophilic PVDF membrane	Low extractable and protein binding
	Broad chemical compatibility and temperature resistance
	Excellent durability proven by testing forward/reverse pulse up to 100x
	Ideal for the removal of particles and beverage-spoiling microorganisms
Bacterial Retention	Retention of 10 ⁷ cfu/cm ² <i>Brevundimonas diminuta</i> (ATCC® 19146) according to ASTM F838.
Quality Assurance	Manufactured in a facility which adheres to ISO 9001 Practices. 100% Integrity tested and lot traceable.
Indirect Food Additive	All component materials meet the FDA Indirect Food Additive requirements cited in 21 CFR 177–182.

SPECIFICATIONS

Filter media	Hydrophilic PVDF membrane
Supports/core/cage/end caps	Polypropylene
O-rings	Silicone, EPDM, FKM, FEP/PFA encapsulated FKM
O-ring internal support ring	PBT
Effective filtration area	0.66m ² (7.1 ft ²)/ Ø69-10 inch
Cartridge diameter	69 mm (2.7 in.)
Max. Operating temperature	80°C
Max. Operating pressure	0.69 MPa (6.9 bar, 100 psi) at 25°C; 0.24 MPa (2.4 bar, 35 psi) at 80°C
Max. Differential pressure	Forward: 0.69 MPa (6.9 bar, 100 psi) at 25°C ; 0.24 MPa (2.4 bar, 35 psi) at 80°C Reverse: 0.30 MPa (3.0 bar, 43.5 psi) at 25°C ; 0.10 MPa (1.0 bar, 15 psi) at 80°C
Bubble point	0.45 µm + 0.22 µm: ≥0.32 MPa (3.2 bar, 46 psi) (water)
Steam sterilization (saturated steam)	up to 100 cycles for 30 minutes at 135°C at Max. Differential Pressure of 0.3 bar (4.3 psi), forward & reverse
Chemical sanitization	up to 50 cycles for 30 minutes at 40°C with mix solution of sodium hypochlorite (NaClO, 100 ppm) and peroxyacetic acid (100 ppm)
Hot water sterilization	up to 50 cycles for 30 min. at 85°C and Max. Differential Pressure of 2 bar (29 psi)
Autoclave	up to 400 cycles for 30 min. at 130°C



Microbiological Control

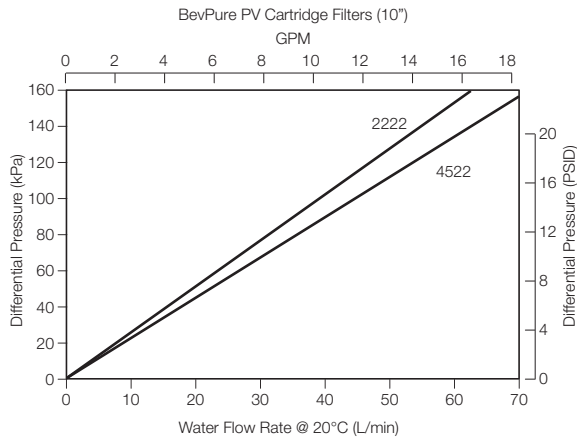
The primary purpose of a membrane filter cartridge in beverage processing is to effectively control spoilage microorganisms.

TYPICAL LOG REDUCTION VALUE (LRV)

	<i>Brevundimonas diminuta</i>	<i>Lactobacillus brevis</i>	<i>Saccharomyces cerevisiae</i>
0.22 µm + 0.22 µm	> 7/cm ²	N/A	N/A
0.45 µm + 0.22 µm	> 7/cm ²	N/A	N/A

Log Reduction Values are calculated using the following formula: $LRV = \log_{10} \left(\frac{\text{total number of organisms entering the filter}}{\text{total number of organisms exiting the filter}} \right)$

FLOW RATES



ORDERING INFORMATION

EXAMPLE: **BPPVII4522HTC10S-F** = 0.45 µm + 0.22 µm, 222/Flat, 10" filter with silicone seals

BPPV

Membrane Layers
I = Single Layer
II = Double Layer

Removal Rating
Double Layer
2222 = 0.22 µm + 0.22 µm
4522 = 0.45 µm + 0.22 µm
6545 = 0.65 µm + 0.45 µm
Single Layer
0022 = 0.22 µm
0045 = 0.45 µm
0065 = 0.65 µm

Connection
DOE = Double Open End, flat gasket
HTC = 222 O-ring/Flat (PBT Insert)
HTF = 222 O-ring/Fin (PBT Insert)
HSF = 226 O-ring/Fin (PBT Insert)
HSC = 226 O-ring/Flat (PBT Insert)
SSF = 226 O-ring/Fin (SS Insert)
SSC = 226 O-ring/Flat (SS Insert)
STF = 222 O-ring/Fin (SS Insert, 3 Tabs)

Nominal Length
10 = 10"
20 = 20"
30 = 30"
40 = 40"

-F Seal Material
S = Silicone
E = EPDM
V = FKM
P = E-FKM (FEP/PFA encapsulated FKM)



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