

Hall Pyke



Membrane Filtration

LHPVHBR

The SMART choice for filtration



LHPVHBR® Filter Cartridges

Positive-Charged Zeta PVDF Membrane·Sterile Liquid Filter

LHPVHBR® Filter Cartridges feature a modified PVDF membrane that removes a significant level of particles and endotoxins. They are suitable for the sterilized filtration of pharmaceutical liquids including ophthalmic liquids, biological and other diluted preservative solutions.

Features and Benefits

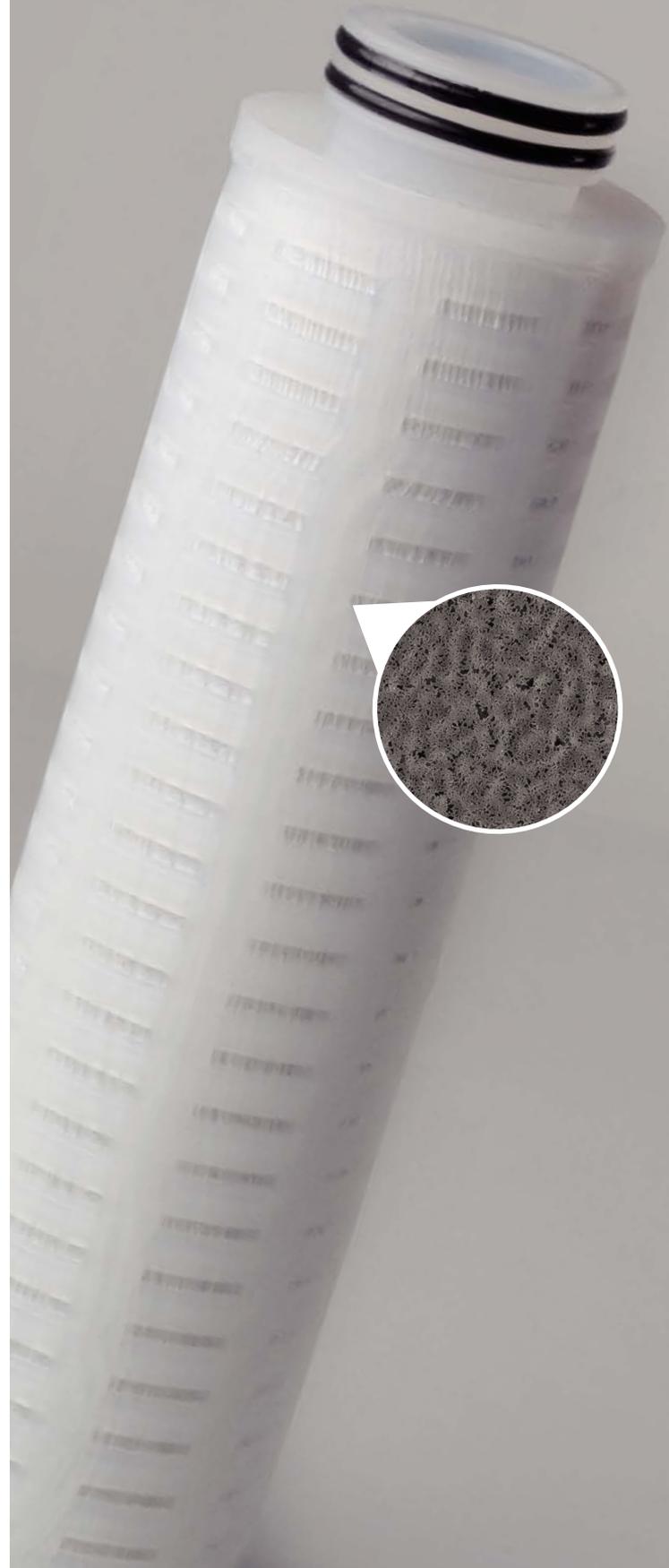
- Low extractable and protein binding
- Modified PVDF membrane with positive-charged Zeta particles absorbs small particles and endotoxins
- Broad chemical compatibility and temperature resistance
- Excellent durability proven by testing forward/reverse pulse up to 100x

Quality Standards

- Integrity Test correlates to ASTM F838-05 Bacterial Challenge Test (BCT)
- Each filter is individually Integrity Tested prior to leaving the factory
- Each filter is Fully Traceable with a unique serial number
- Designed, developed and manufactured in compliance with ISO9001
- Full Regulatory Compliance with the following:
 - 21CFR.210.3(b)(5)(6), 211.72 for Non-Fiber Release
 - Endotoxins: <0.25EU/ml/10inch filter
 - USP <88> Plastic Class VI-121°C
 - FDA 21 CFR177-182 & EU 1935/2004/EC

Typical Applications

- Antibiotics
- Aggressive Solvents
- Biological Agents
- Blood Products
- Chemicals
- Cold and Hot WFI
- Ophthalmic Solutions
- Sanitizing Agents



Sterile Filtration

Bio-burden Reduction

Pre-Filtration

All-Fluorine Filters

Capsule Filters

Materials of Construction

Filter Media	LHPVHBR: Single-Layer Positive-Charged Zeta PVDF Membrane DLHPVHBR: Double-Layer Positive-Charged Zeta PVDF Membrane
Support	Polypropylene
Cage/Core/End Caps	Polypropylene

Operating Conditions

Max. Operating Temperature	90°C
Max. Differential Pressure	4.5 bar / 21 °C (forward) 2.4 bar / 90 °C (forward)
Effective Filtration Area	0.58m ² / Ø 68-10 inch

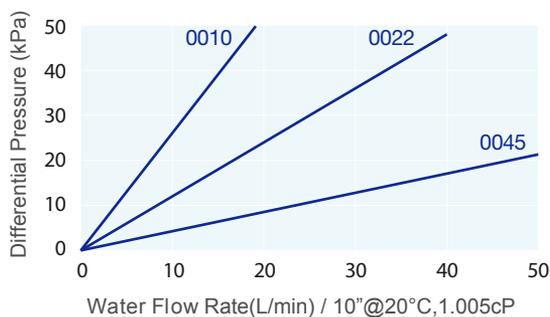
Sterilization

Inline Steam Sterilization	Forward: up to 30 cycles (135°C for 30min@30kPa per cycle)
Autoclave	up to 30 cycles (130°C for 30min per cycle)

Integrity Test Data

Bubble Point	BP: ≥ 0.32 MPa(water) ,LHPVHBR(0.45+0.22 um)
Diffusion Flow	DF: ≤ 20 mL/min/10" @0.28 Mpa(water),LHPVHBR(0.45+0.22 um)

Flow Rate Characteristics



Ordering Information

LHPVHBR	Removal Ratings	End Cap	Nominal Length	Seal Material	-P
[Single-Layer]	0010=0.1µm	HSF=226 /Fin (PBT Insert)	05= 5"	S=Silicone	
	0022=0.22µm	HSC=226 /Flat (PBT Insert)	10=10"	E=EPDM	
	0045=0.45µm	HTF=222 /Fin (PBT Insert)	20=20"	V=Viton	
		HTC=222 /Flat (PBT Insert)	30=30"		
		DOE=Double Open End	40=40"		
DLHPVHBR	2222=0.22+0.22µm				
[Double-Layer]	2245=0.22+0.45µm				
	6545=0.65+0.45µm				

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