

FluoroPV® Filter Cartridges

PVDF Membrane·Sterile Liquid Filter

FluoroPV® Filter Cartridges are composed of a unique hydrophilic polyvinylidene fluoride (PVDF) membrane characterized by low extractable and protein binding. They are suitable for the sterilized filtration of pharmaceutical liquids including ophthalmic liquids, biological and other diluted preservative solutions.

Features and Benefits

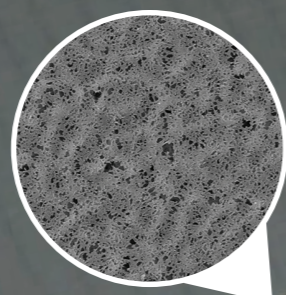
- Low extractable and protein binding
- Broad chemical compatibility and temperature resistance
- Excellent durability proven by testing forward/reverse pulse up to 100x

Quality Standards

- Bacterial quantitative retention of 10⁷ CFU/cm² Brevundimonas Diminuta(ATCC 19146) according to ASTM F838 methodology .
- 100% Integrity testing in manufacturing .
- Each filter is fully traceable with unique serial number .
- Manufactured in a facility which adheres to ISO 9001:2015 Practices .
- Full Regulatory Compliance with following :
 - Bacterial Endotoxin :Aqueous extraction of autoclaved filter contains <0.25 EU/ml as determined by Limulus Amebocyte Lysate (LAL),USP<85>.
 - Non-fiber Releasing :Component materials meet the criteria for a " Non-fiber-releasing filter " as defined in 21 CFR 210.3(b)(6).
 - Component Material Toxicity :Meet the requirement of USP <87> In Vitro Cytotoxicity Test ; Meet the Criteria of USP<88> Biological Reactivity Test for Class VI-121 C plastics
 - TOC/Conductivity at 25 °C : Autoclaved filter effluent meet the USP<643> for Total Organic Carbon and USP<645> for Water Conductivity per WFI requirements after a UPW flush of specified volume .
 - Particle Shedding : Autoclaved filter effluent meet the USP<788>for large volume Injections .
 - Indirect Food Additive: All component materials meet the FDA Indirect Food Additive requirements cited in 21 CFR 177-182.

Typical Applications

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



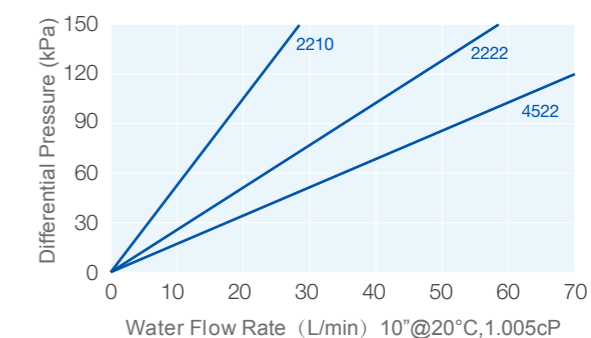
Materials of Construction

Filter Media	LHPVND: Single-Layer Hydrophilic PVDF Membrane DLHPVND: Double-Layer Hydrophilic PVDF Membrane
Support	Polypropylene
Cage/Core/End Caps	Polypropylene

Operating Conditions

Max. Operating Pressure	6.9 bar (100 psi) at 25 °C 4.0 bar (58 psi) at 60 °C 2.4 bar (35 psi) at 80 °C
Max. Differential Pressure	Forward 6.9 bar (100 psi) at 25 °C 4.0 bar (58 psi) at 60 °C 2.4 bar (35 psi) at 80 °C Reverse 3.0 bar (44 psi) at 25 °C 1.0 bar (15 psi) at 80 °C
Effective Filtration Area	0.58m ² / Φ 69-10 inch

Flow Rate Characteristics



Sterilization

Inline Steam Sterilization (LHPVND & DLHPVND)	Up to 100 forward cycles and 50 reverse cycles (135 °C for 30 min < 0.3 bar per cycle) .
Autoclave (LHPVND & DLHPVND)	up to 400 cycles (130°C for 30min per cycle)

Integrity Test Data

Bubble Point	BP : ≥ 0.32 MPa(water), LHPVND (0.22 μm)
Diffusion Flow	DF : ≤ 20 ml/min/10" @ 0.28 MPa, LHPVND (0.22 μm)

Ordering Information

LHPVND	Removal Ratings	End Cap	Nominal Length	Seal Material	-P
[Single-Layer]	0010=0.10μm 0022=0.22μm 0045=0.45μm 0065=0.65μm 0100=1.0μm	HSF=226 /Fin (PBT Insert) HSC=226 /Flat (PBT Insert) HTF=222 /Fin (PBT Insert) HTC=222 /Flat (PBT Insert) DOE=Double Open End	05= 5" 10=10" 20=20" 30=30" 40=40"	S=Silicone E=EPDM V=Viton P=PFA/Viton	
DLHPVND	2222=0.22+0.22μm 2245=0.22+0.45μm 6545=0.65+0.45μm 2210=0.22+0.1μm 4545=0.45+0.45μm 6522=0.65+0.22μm 6510=0.65+0.1μm 4510=0.45+0.1μm				
[Double-Layer]					