

PVDN Duofluor Series Filter

Hydrophilic PVDF bioburden reduction membrane filter



Masterfilter **PVDN Duofluor series** filter cartridges are manufactured from an inherently hydrophilic PVDF membrane that offers a broad chemical and temperature resistance. Characterized by its low protein binding properties, the **PVDN** series is ideal for bioburden reduction, clarification and sterilization of pharmaceutical and biological solutions.

The **PVDN cartridges** are available in multiple pore sizes with single-layer PVDF membrane. The membranes are easily wettable and fully integrity testable to meet the pharmaceuticals levels for sterility assurance.



Features	Benefits
Inherently Hydrophilic membrane	Ideal filter for aqueous and high surface tension solutions
Low in protein binding, extractables non-fibre shedding	Yields high protein recovery with minimal product loss in biopharmaceutical applications
Easily Wettable	100% In-line Integrity testable
Inert PVDF membrane	Provides broad chemical and thermal stability with fluids

Typical Applications

<i>PVDN Duofluor optimised for sterile filtration of critical fluids used in Pharma and Biopharma manufacturing</i>			
Parenterals	Antibiotics	Vaccines	Culture Media
Buffers	Protein solutions	Serum	API's
Ophthalmic solutions	Preservatives	WFI	Cosmetics
Orals	High purity water	Blood Derivatives	MABs

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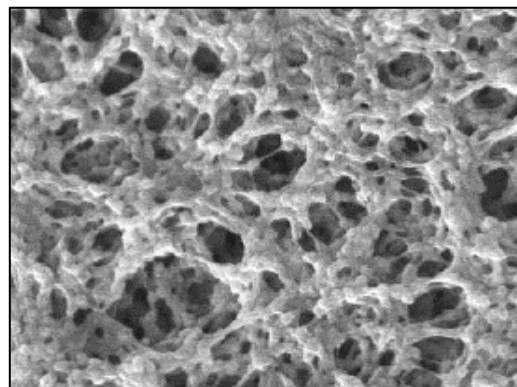
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Materials of construction

Filter membrane	Hydrophilic Polyvinylidene fluoride (PVDF)
Support layers	Polypropylene
Inner Core	Polypropylene
Outer Cage	Polypropylene
End cap	Polypropylene
O-Ring seals	EPDM/Silicone/ Viton

S.E.M PVDF Membrane



Operating parameters

Maximum operating temperature	<90°C @ <1.5bar
Maximum differential pressure (Forward)	6.9bar@25°C
	2.4bar@80°C
Hot water Sanitization: 85°C/30 min @max. differential pressure of 0.5 bar	
Steam In Place (SIP) Sterilization: 125°C/30min @ max. differential pressure of <0.3 bar (Max. 20 cycles)	
Autoclaving: 125°C/30min @ <0.3bar (Max. 20 cycles)	

Safety & Quality Compliances

Bacterial Retention	Retention of 10^7 cfu/cm ² <i>Brevundimonas diminuta</i> (ATCC 19146) according to ASTM F838
Particle Shedding	Autoclaved filter effluent meets the USP <788> for LVP
Non fibre releasing	All components meet the criteria for Non-Fibre releasing as defined in 21 CFR 210.3 (b) (6)
Bacterial Endotoxin	Extraction samples < 0.25EU/mL as determined by the LAL, USP <85>
Biological toxicity	Meets the USP <88> Biological Toxicity Reactivity Test in vivo for Class VI-121°C in plastics
Cytotoxicity	Meets USP <87> in vitro cytotoxicity test
Indirect food additives	All components meet the FDA indirect food additive requirements cited in 21 CFR 177-182
Quality Assurance	PVDN Duofluor is manufactured under ISO 9001:2015 GMP

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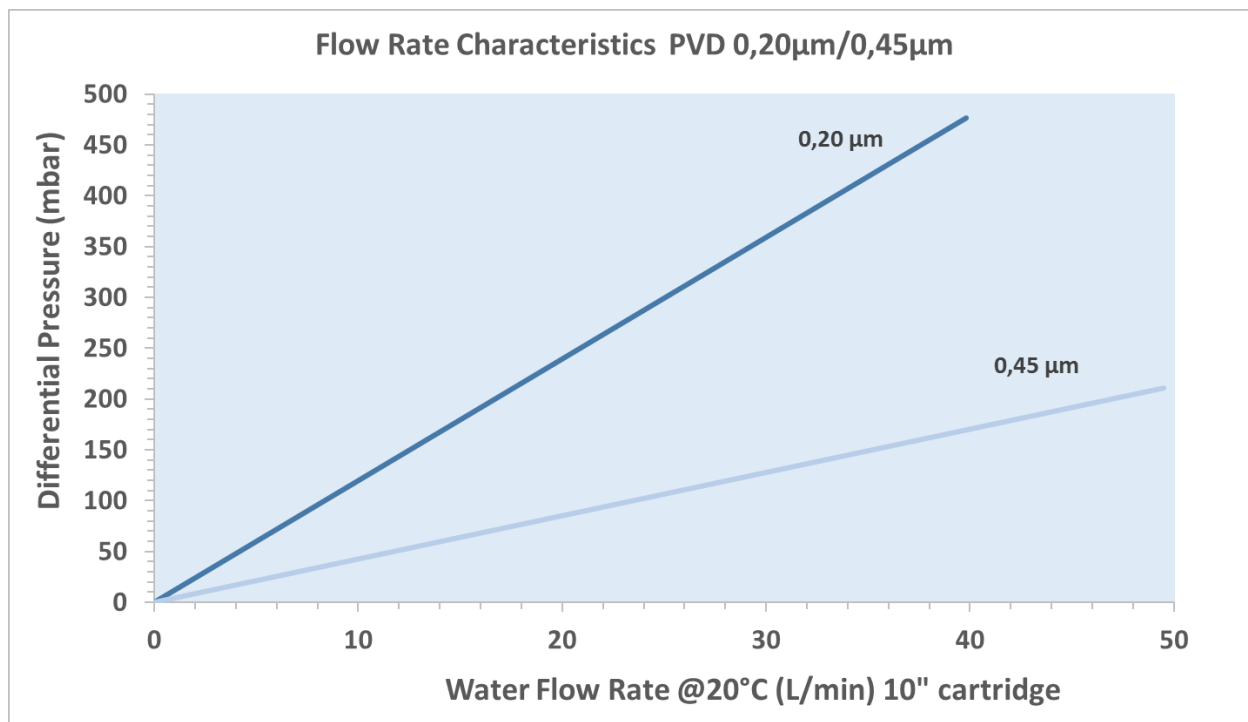
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Nominal Dimensions

	Cartridges				
Length	5" (125mm)	10" (254mm)	20" (508mm)	30" (762mm)	40" (1016mm)
EFA	0.29 m ²	0.58 m ²	1.16 m ²	1.74 m ²	2.32 m ²

Flow vs Pressure



Part Numbers

PVDN

020

Code	Removal rating micron
010	0,1µm
020	0,2µm
045	0,45µm

10

Code	length	
	mm	inch
05	125	5
10	254	10
20	508	20
30	762	30
40	1016	40

HSF

Code	end caps*
STC	Sartorius Code 28
HTC	222 O-ring/flat (Code 3)
HTF	222 O-ring/fin (Code 8)
HSF	226 O-ring/fin (Code 7)
HSC	226 O-ring/flat (Code 2)
HSM	Millipore LAGB
HST	MCY4463 (Code 18)
SLV	MCY4440
SLK	Sealkleen retrofit

*) other end caps on demand

S

Code	O-Rings
S	Silicone
E	EPDM
V	Viton