

Masterfilter PVDN series

Masterfilter *DuoFluor* PVDN series filter cartridges are manufactured from an inherently hydrophilic PVDF membrane that offers a broad chemical and temperature resistance. Characterised by its low protein binding properties, the PVDN series is ideal for bioburden reduction, clarification and sterilisation 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.

Applications

- Vaccines
- Chemicals and APIs
- Ophthalmic solutions
- Cold and hot WFI
- Biotech
- Sanitising agents
- Blood derivatives

Features and Benefits

- Inherently hydrophilic membrane
- Low in protein binding, extractables and non-fibre releasing
- Easily wettable
- High flowrate with low pressure drop

Materials of Construction

- Membrane: Hydrophilic polyvinylidene fluoride (PVDF)
- Support layers: Polypropylene
- Inner core: Polypropylene
- Outer cage: Polypropylene
- End caps: Polypropylene
- O-rings: EPDM, Silicone, Viton, PTFE encapsulated Viton

Operating Parameters

- Maximum operating pressure: 6.9 bar at 25 °C, 4.0 bar at 60 °C, 2.4 bar at 80 °C
- Maximum differential pressure forward: 6.9 bar at 25 °C, 4.0 bar at 60 °C, 2.4 bar at 80 °C
- Maximum differential pressure reverse: 3.0 bar at 25 °C, 1.0 bar at 80 °C
- Steam sterilisation: 20 cycles for 30 minutes at 135 °C (< 0.3 bar, 5 psi) forward
- Autoclave: 30 cycles for 30 minutes at 130 °C
- Effective Filtration Area: 0.58 m² 10" module



Quality Assurance

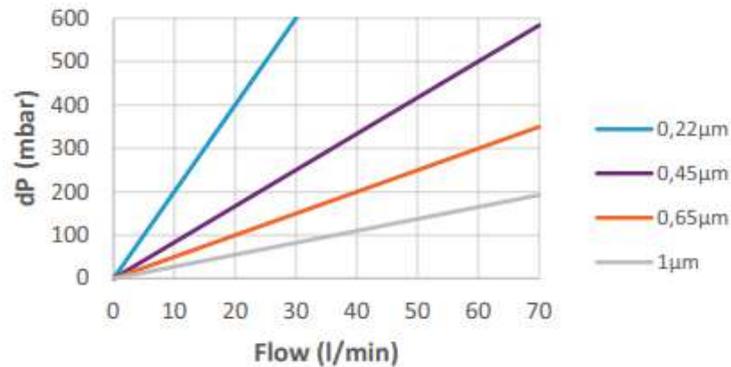
- Retention of 10⁷ cfu/cm² *Brevundimonas diminuta* (ATCC 19146) according to ASTM F838
- Cartridge is marked with unique serial number for identification and traceability
- All components meet the criteria for non-fibre releasing as defined in 21 CFR 210.3 (b) (6)
- PVDN is manufactured under ISO 9001:2015 GMP

Biological Standards

- Aqueous extraction less than 0.25 EU/ml as determined by Limulus Amebocyte Lysate (LAL), meeting requirements of USP <85>
- Meets the USP <88> Biological Toxicity Reactivity Test in vivo for Class VI-121°C plastics
- Meets USP <87> in vitro cytotoxicity test and autoclaved filter effluent meets the USP <788> for LVP
- All component materials meet the FDA indirect Food Additive requirements cited in 21 CFR 177-182

Flow Rate Characteristics

Flow rate



Note: 10" cartridge tested with water @20°C, 1,005 cP (typical flow rate)

Part Numbers

PVDN 020 - 10 - HSF - S

Code	Removal rating [μm]	Code	Length		Code	End caps*	Code	O-rings
			[mm]	[inch]				
010	0.1	05	127	5	STC	Sartorius Code 28	S	Silicone
020	0.2	10	254	10	HTC	222 O-ring/flat (Code 3)	E	EPDM
045	0.45	20	508	20	HTF	222 O-ring/fin (Code 8)	V	Viton
065	0.65	30	762	30	HSF	226 O-ring/fin (Code 7)	P	PTFE encapsulate d Viton
100	1	40	1016	40	HSC	226 O-ring/flat (Code 2)		
					HSM	Millipore LAGL		
					HST	MCY 4463 (Code 18)		
					SLV	MCY 4440		
					SLK	Sealkleen retrofit		

*Other end caps on request

e.g. part number: PVDN020-10-HSF-S

Membrane PVDF filter cartridge, 0.2 μm, 10" Length, Code 7 end caps, Silicone O-ring