

# PVDF Membrane (CFPV) Cartridge Filters



The Nucart® Hydrophilic PVDF (Polyvinylidene fluoride) cartridge filters are available in 0.22µm & 0.45µm ratings and are especially designed and developed for high purity and final filtration applications. i.e. water, solvents, sterile filtration, organic and aqueous samples as well biological sample filtration. Constructed using absolute rated PVDF membranes, these filters are available in multiple size options (5"-40") and suitable from laboratory to full production applications as they offer versatile performance in terms of fast flow with better throughput.

## Special Features & Benefits

- ✓ Easy Identification & Traceability
- ✓ Reusable after multiple sterilization cycles
- ✓ Broad Chemical Compatibility across organic and aqueous sample; 2-10 pH
- ✓ Low protein binding

## Key Applications

- Antibodies Filtration
- Vaccine Filtration
- Final Sterile Grade Filtration
- Sterilization of Hormonal Injectables
- Biosimilars
- Quality Buffers Preparation
- Microbial Retention & Stabilization

***Our Nucart Cartridge filters are quality assured for retention efficiency, integrity test and flow rate and validated for Heat Stability, Beta ratio test, fiber particle release, extractables and biosafety***

## In Compliance with Global Standards

<b>Bacterial Endotoxin</b>	<i>The filtrate/Aqueous extraction from downstream of the filter exhibited endotoxin result &lt; 0.25 EU/mL when tested as per USP &lt;85&gt; methodology</i>
<b>Oxidizable Substances</b>	<i>Oxidizable matter in filtered water meets the USP &lt;1231&gt; Oxidizable Substance Test requirements</i>
<b>Non-fiber Releasing</b>	<i>Meets the criteria for a "non-fiber releasing" filter as defined in 21 CFR 210.3(b)(6).</i>
<b>Particle Shedding</b>	<i>Meets Cleanliness per USP &lt;788&gt; for Particulates in Injectables</i>
<b>Extractable with water</b>	<i>Extractable passes within limit as specified by USP &lt;661&gt;</i>
<b>TOC/ Conductivity</b>	<i>Meets the USP &lt;643&gt; for Total Organic Carbon Meets the USP &lt;645&gt; for Water Conductivity</i>

- Manufactured in an ISO Class 8 Cleanroom Environment
- Complete Qualification Guide Available
- Critical raw material used for manufacturing are Compliant with FDA Indirect Food Additive requirements cited in 21 CFR 177.1520 & 21 CFR 177.2440
- Comply with USP <88> Reactivity Test for Class VI plastics
- Wide Chemical Compatibility
- 100% Integrity Tested

# TECHNICAL SPECIFICATIONS

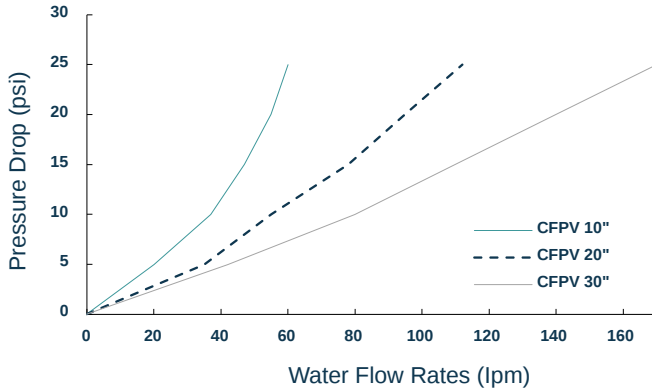


## CONSTRUCTION MATERIALS

**Filter Media:** Polyvinylidene fluoride CFPV

**Supporting Media:** Polyester

**Core & Cage:** Polypropylene



## MAXIMUM OPERATING DIFFERENTIAL PRESSURE AND TEMPERATURE

**Max Temp** 80 °C @ ≤ 2 Kg/cm<sup>2</sup>

**Max Pressure** 3.5 Kg/cm<sup>2</sup> @ 25 °C for forward  
0.7 Kg/cm<sup>2</sup> @ 25 °C for reverse

**Autoclavable** 03 autoclave/steam sterilization cycles of 30 minutes at 121 °C/ 135 °C

## INTEGRITY TEST DATA

### Bubble Point:

0.22µm: ≥ 3447 mbar (50 psi) (with water wetted)

0.45µm: ≥ 2206 mbar (32 psi) (with water wetted)

### Max Air Diffusion Flow:

0.22µm: ≤ 30 mL/min @ 37 psi (2.55 Kg/cm<sup>2</sup>)

0.45µm: ≤ 35 mL/min @ 24 psi (1.65 Kg/cm<sup>2</sup>)

**Bacterial Retention:** Qualitative retention of ≥ 10<sup>7</sup> organisms/cm<sup>2</sup> of *Brevundimonas diminuta* (ATCC® 19146) and *Serratia marcescens* (ATCC® 14756) for microbial challenge as per ASTM® 838-05 methodology

## ORDERING INFORMATION CODES:

Type		Size			Pore Size		Adaptor		Rings / Gaskets	
Type	Code	Length	EFA	Code	Micron	Code	Type	Code	Ring	Code
Single Layer	CFPV	3"	0.2m <sup>2</sup>	03	0.22 µm	020	7P	U	Silicone	SS
CFPV 0.8µm upstream	CFPVR2	5"	0.3m <sup>2</sup>	05	0.45 µm	045	BEO	V	Viton	SV
		9.75"	0.7m <sup>2</sup>	9.75			K SEAL	K	EPDM	SE
CFPV 0.65µm upstream	CFPVR1	10"	0.7m <sup>2</sup>	10	Optiseal	X	4463	Y	Encapsulated PTFE	FV
		20"	1.4m <sup>2</sup>	20	4463B	Z				
CFPV 0.45µm upstream	CFPVQ	30"	2.1m <sup>2</sup>	30	M Disc	Q	222	R	Synthetic Rubber	SR
		40"	2.8m <sup>2</sup>	40	4440	W				
High temp. PVDF	CFVH								No Ring	XX

**EXAMPLE: CFPV10045USS**



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