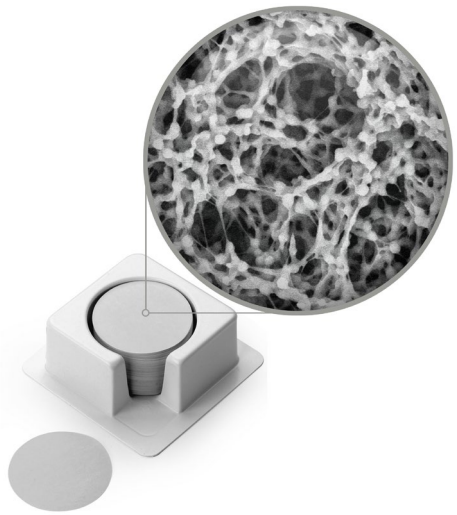
PVDF MEMBRANE FILTERS

Polyvinylidene difluoride (PVDF) membranes exhibit extraordinarily high resistance under harsh chemical and physical conditions. (e.g. strong acids, bleaching agents, solvents, and radiation). Sterlitech offers these membranes in hydrophilic and hydrophobic options.

FEATURES

Hydrophilic PVDF exhibits extremely low extractable/protein binding with high flow rates and throughputs for aggressive, solvent-based mobile phase applications, biological sterilization/ clarification, and HPLC/analytical sample preparation.

The highly **Hydrophobic PVDF** is available in pore sizes smaller than 0.1 micron, making it ideal for high pressure degassing, membrane distillation, and pervaporation.



APPLICATIONS

Hydrophilic PVDF

- Aqueous and compatible organic HPLC samples and mobile phases
- Filtration/sterilization of proteinaceous aqueous solutions (e.g. culture media or cell lysate)
- Filtration of aqueous solutions (strong acids, bases, and oxidizers) and compatible solvents (alcohols, aromatic hydryocarbons)

Hydrophobic PVDF

- Membrane distillation
- Pervaporation
- Electrolysis
- Treatment of corrosive solutions
- Protein blotting assays (transfer membrane)
- Degassing of aqueous solutions

SPECIFICATIONS

HYDROPHILIC PVDF	
Sterilization	Gamma Irradiation, EtO, Autoclave
USP Class VI Testing	Passed
BSA Protein Binding	~4 µg/cm^2
Max. Operating Temp.	85°C (185°F)

PERFORMANCE BY PORE SIZE			
Pore Size (µm)	**Thickness (µm)**	**H_2O Flow Rate[1]**	**Bubble Point (psi)**
0.22	125	7	56
0.45	115	29	25

[1] Measured as mL/min/cm^2 at 13.5 psi

HYDROPOBIC PVDF	
Sterilization	UV Irradation
USP Class VI Testing	Passed
Thickness	50 µm
pH Range	1-12
Max. Operating Temp.	≤120 °C (248 °F)

PERFORMANCE BY PORE SIZE		
Pore Size (µm)	**Model**	**Liquid Entry Pressure (bar)**
0.02	Novamem PVDF20	>5 (72 psi)
0.10	Novamem PVDF100	>3 (43 psi)