



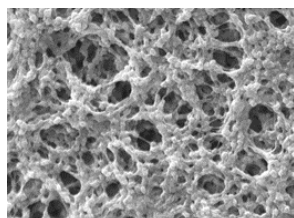
PPVWB/GS Capsule Filters

Hydrophobic PVDF Membrane

PPVWB/GS Filters consist of a single layer, hydrophobic, high capacity polyvinylidene fluoride (PVDF) membrane. Designed to be incorporated in single use systems, the PPVWB/GS is constructed with gamma stable polypropylene materials. These capsule filters come in a variety of sizes: Mini, 2, 5, 10, 20 and 30 inches. Each device is available in 0.22 microns.

These filters are used for sterile filtration in air/gas applications. The PPVWB/GS filters deliver high flow and throughput with the broad chemical compatibility of a fluoropolymer.

Critical Process provides unrivaled delivery times, technical consulting before purchasing, and very competitively priced high-performance products. Our comprehensive testing & analysis and validation services support your team whenever they need it. Your process experts partnering with our filtration experts is how we deliver your company's solution right the first time.



Recommended applications:

- Fermentation Air
- Compressed Air

Sterilizing

Air & Process Gas

Gamma Stable

Nominal Dimensions

	Mini-Capsule	Standard Capsules
Body Length	2.85 in. (7.2 cm)	N/A
Overall Length	3.75 to 5.19 in. (9.5 to 13.2 cm)	2 to 30 in (5.1 to 76.2 cm)
Outside Diameter	2.95 in. (7.5 cm)	3.50 in (8.9 cm)

Construction Materials

Filtration Media	Hydrophobic High Capacity Polyvinylidene Fluoride (PVDF) Membrane
Media Support	Polypropylene
End Caps, Center Core, Outer Support Cage, Capsule Housing, Mini-Capsule Housing	Polypropylene
Sealing Method	Thermal Bonding

Maximum Operating Parameters

	MINI CAPSULES	STANDARD CAPSULES
Liquid Operational Pressure	80 psi at 68 °F (5.52 bard at 20 °C)	80 psi at 68 °F (5.52 bard at 20 °C)
Gases Operational Pressure	60 psi at 68 °F (4.14 bar at 20 °C)	60 psi at 68 °F (4.14 bar at 20 °C)
Operating Temperature (water)	110 °F at 30 psid (43 °C at 2.07 bard)	110 °F at 30 psid (43 °C at 2.07 bard)
Forward Differential Pressure	50 psid at 68 °F (3.45 bard at 20 °C)	Liquid - 80 psid at 68 °F (5.52 bard at 20 °C) Gas - 60 psi at 68 °F (4.14 bar at 20 °C)
Reverse Differential Pressure	40 psid at 68 °F (2.76 bard at 20 °C)	50 psid at 68 °F (3.45 bard at 20 °C)
Recommended Changeout Pressure	35 psid (2.41 bard)	35 psid (2.41 bard)

Sanitization & Sterilization

Autoclave	250 °F (121 °C), 30 min, 5+ cycles	250 °F (121 °C), 30 min, 25+ cycles
Chemical Sanitization	Performed using industry standard concentrations of hydrogen peroxide, peracetic acid, sodium hypochlorite and other selected chemicals.	

Filtration Area (Nominal)

	MINI CAPSULES	STANDARD CAPSULES				
Length	2.85"	2"	5"	10"	20"	30"
	7.2cm	5.08cm	12.7cm	25.4cm	50.8cm	76.2cm
Area	0.45 ft ²	1.0 ft ²	2.8 ft ²	6.0 ft ²	12.0 ft ²	18.0 ft ²
	416cm ²	0.09m ²	0.26m ²	0.56m ²	1.12m ²	1.68m ²

PORE SIZE	BUBBLE POINT MINIMUM*	
μm	PSIG	BARG
0.22	15	1.03

* Bubble Point for membrane wetted with 60% IPA / 40% water

Endotoxins

The levels of bacterial endotoxins in aqueous extracts from PPVWB/GS filters are below current USP limits as specified for water for injection.

Extractables

PPVWB/GS filters typically exhibit low levels of non-volatile residues.

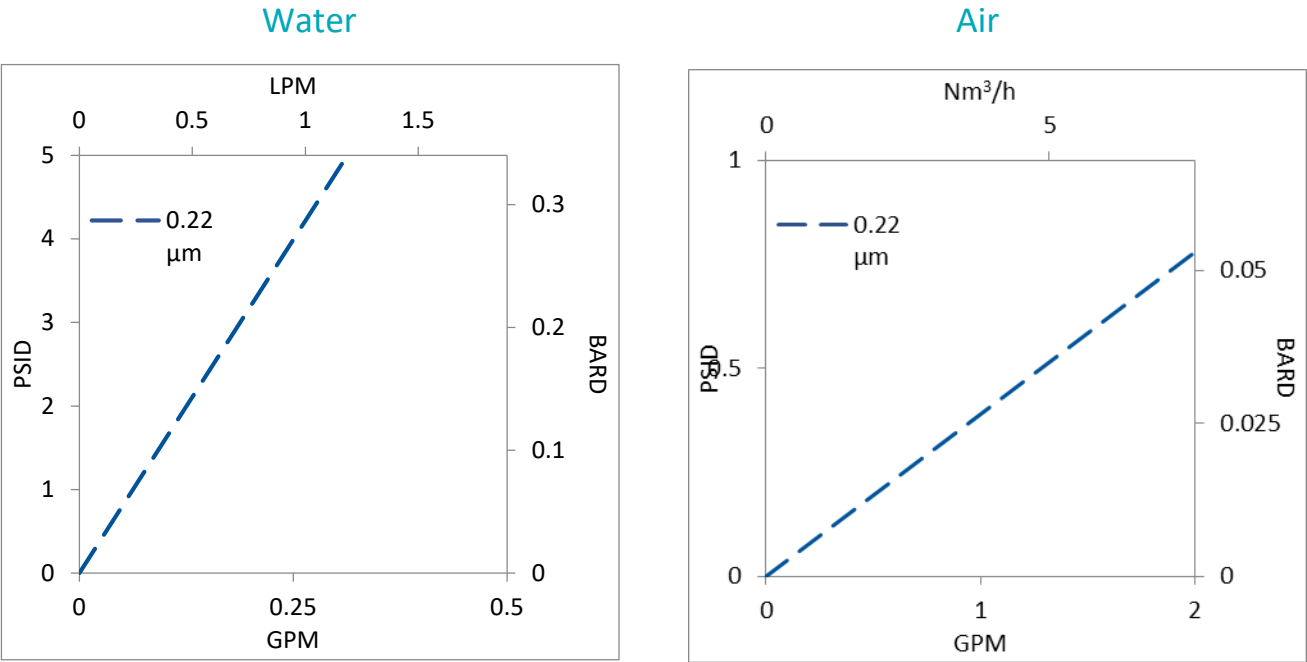
Non-Fiber Releasing

The PPVWB/GS filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters.

FDA Compliance

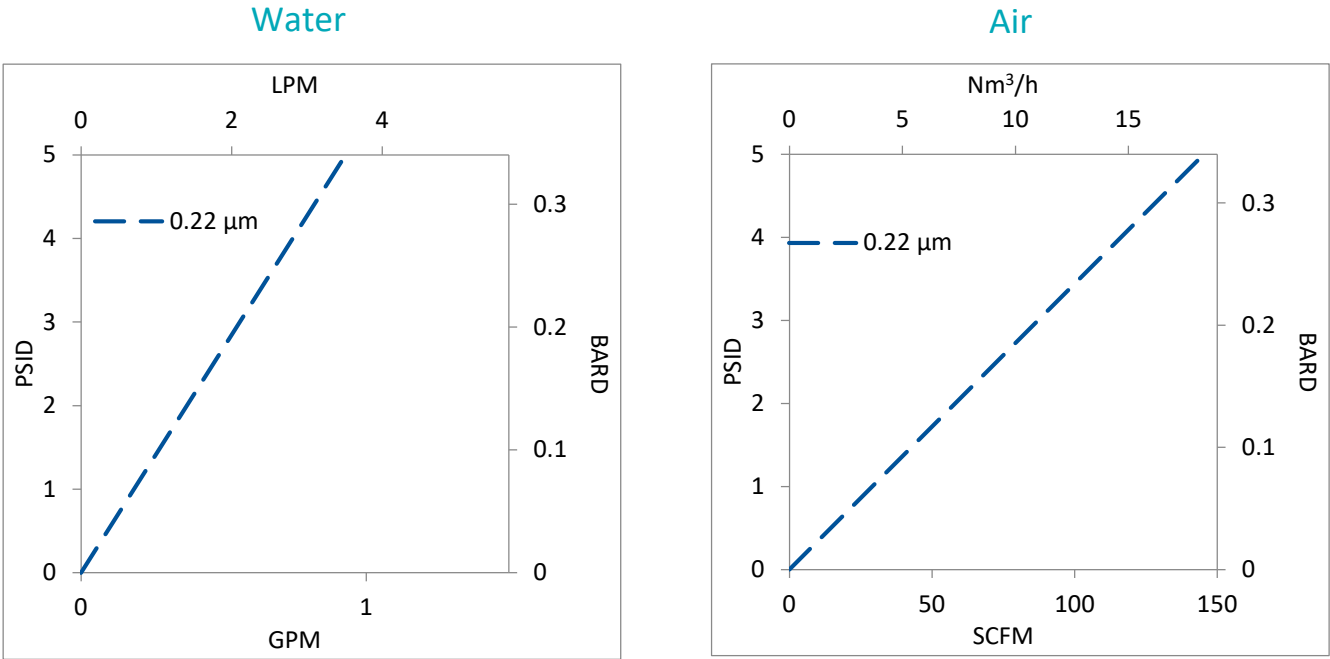
Materials meet the requirements listed by the FDA as appropriate for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440, and 177.2600 as applicable.

Flow Rates for PPVWB/GS Mini-Capsules by Pore Size



Flow rates for Mini-Capsule filters are per filter. The test fluid is water or compressed air at ambient temperature. Flows are tested using a mini-capsule filter with ½” Sanitary inlet and outlet ports. Rates will vary based on end configuration of the mini-capsule.

Flow Rates for PPVWB/GS Standard Capsules by Pore Size



Flow rates for Capsule filters are tested using a 2” capsule filter with 1” sanitary inlet and outlet ports. The test fluid is water or compressed air at ambient temperature. Flow rates for larger capsules will scale with filtration area. Rates will vary based on end configuration of the capsule.

PPVWB/GS Filter Ordering Information

Fill in the corresponding codes in the boxes below to build your Part Number.

To consult with one of our technical team members, request a quote or place an order:
call (603) 880-4420 or [contact us here](#)

Mini-Capsule Filters

MC PPVWB -20 N 000 - GS

Inlet	Inlet Vent Port	Outlet	Outlet Vent Port
1 = 1/8" Hose Barb	1 = 1/8" Hose Barb	1 = 1/8" Hose Barb	1 = 1/8" Hose Barb
2 = 1/4" Hose Barb	2 = 1/4" Hose Barb	2 = 1/4" Hose Barb	2 = 1/4" Hose Barb
3 = 1/2" Hose Barb	3 = 1/2" Hose Barb	3 = 1/2" Hose Barb	3 = 1/2" Hose Barb
4 = Luer Lock	4 = Luer Lock	3B = 1/2" Hose Barb with Filling Bell	4 = Luer Lock
5 = 1/2" Sanitary*	6 = 1/4" MNPT	4 = Luer Lock	5 = 1/2" Sanitary*
6 = 1/4" MNPT		5 = 1/2" Sanitary*	6 = 1/4" MNPT
		6 = 1/4" MNPT	

*When choosing the Sanitary Inlet/Outlet, the Luer Lock option is required for the Vent Port

Standard Capsule Filters

CP PPVWB -20 N 000 - GS

Length	Inlet	Outlet
A = 2"	A = 1/4" Female NPT	A = 1/4" Female NPT
B = 5"	B = 1/4" Male NPT	B = 1/4" Male NPT
1 = 10"	C = 3/8" Female NPT	C = 3/8" Female NPT
2 = 20"	D = 1/2" Female NPT	D = 1/2" Female NPT
3 = 30"	E = 1/2" Male NPT	E = 1/2" Male NPT
	F = 1"-1 1/2" Sanitary	F = 1"-1 1/2" Sanitary
	G = Hose Barb*	G = Hose Barb*

*Fits hoses/tubes with inner diameter 11/32 to 9/16 inches



One Chestnut Street
Nashua, NH 03060
603.880.4420
FAX: 603.880.4536
CriticalProcess.com

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Data Sheet PPVWB/GSDS Rev B