

Vinofil™

Double Layer Membrane Filters for Wine and Beer Filtration



Vinofil™ membrane cartridges are specifically designed for wine and beer filtration, as a final filter for cold biological stabilisation. Vinofil™ cartridges utilise a double layer of naturally hydrophilic polyethersulfone (PES) membrane with a mirrored asymmetric pore structure, providing graded filtration throughout its depth, resulting in higher throughputs and long service life.

Vinofil™ cartridges exploit the narrow pore size distribution and high void volume of the media to provide a choice of cartridges capable of meeting the requirements of most applications. These cartridges offer high flux rates and low differential pressures, a feature common to polyethersulfone membranes.

Vinofil™ cartridges benefit from the low binding characteristics of polyethersulfone membranes. They are highly resistant to integrity failure caused by steam sterilisation and have excellent compatibility with CIP sterilising agents.

Typical Applications

- Wine and sparkling wine
- Beer
- Mineral water and soft drinks
- Process water supply

Ordering Information

Product Code:		1	2	3	4	5	6	7					
1: Membrane		2: Pore rating		3: Version		4: Length (Nominal)		5: End Fitting		6: Seals		7: Additional	
VT	Vinofil™	20	0.2µm	R	Rinsed	1	10" (254mm)	A	Code 3	A	Ethylene Propylene	A	N+U
		45	0.45µm	S	Standard	2	20" (508mm)	B	Code 7	B	Silicone	N	Non-steamable (no insert)
		65	0.65µm			3	30" (762mm)	C	Code 8	C	Viton®	P	Pharma Grade
						4	40" (1016mm)	F	N SOE	D	Nitrile	U	Unbranded
						5	5" (125mm)	G	G DOE (short)	E	FEP Encap. Viton®		
								H	G SOE	G	FEP Encap. Silicone		
								J	216 (218), fin	J	DOE PTFE		
								K	Code 2				
								L	223, fin (no lugs)				
								M	DOE				
								S	Code 28, fin (3 lugs)				
								T	223, flat (no lugs)				
								U	224, fin				
								V	226, fin				
								W	F20 +Code 7 (SS Core)				
								X	F20 +Code 2 (SS Core)				
								Y	BS832, flat				
								Z	F20 +Code Y (SS Core)				

Features and Benefits

- Guaranteed microbial ratings
- Low binding and fouling
- Will not hydrolyse
- Excellent chemical compatibility
- Cartridge integrity and low TOC levels
- Suitable for steam sterilising
- Full traceability
- Controlled manufacturing environment

Specifications

Materials of Manufacture

Filter membranes:	Dual Polyethersulfone
Membrane support:	Polypropylene
Irrigation mesh (support):	Polypropylene
Drainage layer:	Polypropylene
Inner core:	Polypropylene
Outer support:	Polypropylene
End fittings:	Polypropylene
Support ring:	Stainless steel

Cartridge Dimensions (Nominal)

Effective Filtration Area:	0.48m ² (5.2ft ²) per 10" module
Diameter:	70mm (2.8")
Length:	1 module (short): 125mm (5")
	1 module: 254mm (10")
	2 modules: 508mm (20")
	3 modules: 762mm (30")
	4 modules: 1016mm (40")

Cartridge Treatment

Standard:	Cleaned and flushed with pyrogen-free water
Rinsed:	Ultra-clean, pulse flushed to give a system resistivity of 18MΩ.cm

Gaskets and O-Rings

FDA approved Ethylene Propylene, FEP encapsulated, Silicone, Viton® or Nitrile

Maximum Differential Pressure

Normal flow direction at:	
20°C (68°F):	6.0bar (87psi)
80°C (176°F):	4.0bar (58psi)
100°C (212°F):	3.0bar (44psi)
120°C (248°F):	2.0bar (29psi)
Reverse flow direction at:	
20°C (68°F):	2.1bar (30psi)
80°C (176°F):	1.0bar (15psi)
100°C (212°F):	0.5bar (7psi)

Operating Temperature

Maximum continuous: 85-90°C (185-194°F)

Sterilisation

In situ steam 80 x 20 minute cycles at 125°C (257°F)
Hot water 200 x 20 minute cycles at 85-90°C (185-194°F)

Extractables

Minimum total extractables. Please refer to the Vinofil™ Validation Guide.

Integrity Testing

Each Vinofil™ module of every cartridge is individually integrity tested using the Diffusive Flow Test, which correlates to the HIMA and ASTM F838-05 bacterial challenge tests. Non-destructive integrity tests, such as Pressure Hold, Diffusive Flow and Bubble Point, can be performed by customers. Please contact us for procedural details.

Clean Water Flow Rates

- Typical clean water flow rate:
A 254mm (10") Vinofil™ single cartridge exhibits the flow-ΔP characteristics indicated below, for solutions with a viscosity of 1 centipoise.
- Other solutions:
For solutions with a viscosity other than 1 centipoise, multiply the indicated differential pressure by the viscosity in centipoise.

