

Biofil™ 2

Polyethersulfone Membrane Cartridge Filters



Biofil™ 2 cartridges are based on a naturally hydrophilic polyethersulfone (PES) membrane with a mirrored asymmetric pore structure. When combined with quality all-polypropylene cartridge components and high integrity manufacturing techniques, the polyethersulfone membrane provides a high strength, long life cartridge of consistently precise microbial retention.

Biofil™ 2 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. Biofil™ 2 cartridges offer high flux rates and low differential pressures, a feature common to polyethersulfone membranes.

Ordering Information

Product Code:						
1: Membrane	2: Pore rating	3: Version	4: Length (Nominal)	5: End Fitting	6: Seals	7: Additional
BT	Biofil™ 2	10 0.1µm	R Rinsed	A Code 3	A Ethylene Propylene	A N+U
		20 0.2µm	S Standard	B Code 7	B Silicone	N Non-steamable (no insert)
		45 0.45µm		C Code 8	C Viton®	P Pharma Grade
		65 0.65µm		F N SOE	D Nitrile	U Unbranded
		120 1.2µm		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)		
				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 protein binding
- Excellent hydrolysis resistance
- Excellent chemical compatibility
- Suitable for steam sterilising
- Full traceability
- Controlled manufacturing environment

Specifications

Materials of Manufacture

Filter membrane:	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:	0.69m ² (7.4ft ²) (per 10" module)
Diameter:	70mm (2.8")
Length:	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 30 minute cycles at 135°C (275°F)
Hot water 100 x 20 minute cycles at 90°C (194°F)

Extractables

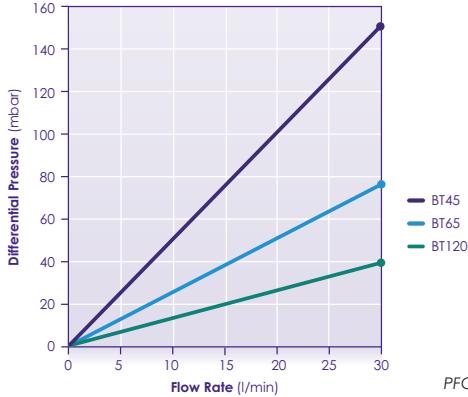
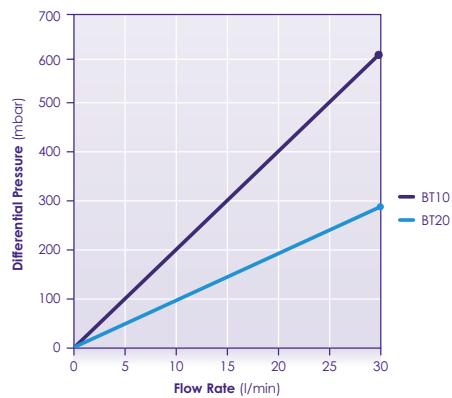
Minimum total extractables. Please refer to the Biofil™ 2 Validation Guide.

Integrity Testing

Each Biofil™ 2 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 detail.

Clean Water Flow Rates

- Typical clean water flow rate:
A 254mm (10") Biofil™ 2 single cartridge exhibits the flow-ΔP characteristics indicated below, for solutions with a viscosity of 1 centipoise.
- Other solutions:
For solutions with a viscosity of greater than 1 centipoise, multiply the indicated differential pressure by the viscosity in centipoise.



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