

Alipore® DPHC High-Throughput Hydrophilic PES Prefilter

Polyethersulfone (PES)

High Throughput

Particle Removal

Process Protection



Product Introduction

Alioth Alipore® DPHC monolayer polyethersulfone (PES) prefilters are suitable for a variety of biopharmaceutical industry of process fluids with both cartridge and disposable capsule format available. This filter features validated excellent chemical compatibility, particle removal capabilities, and high throughput characteristics, protecting the sterilizing filter to optimize economic benefits.

Key Features and Benefits

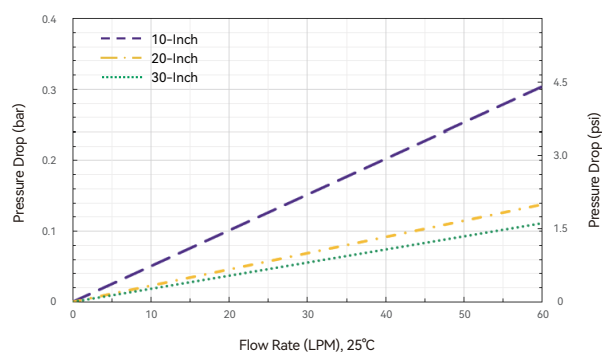
- Highly asymmetric monolayer PES membrane
- High flux and high capacity
- Removal of particulate impurities
- Wide chemical compatibility (pH1-14)

Typical Applications

- Buffers
- Protective filtration before critical purification process
- Bacteria reduction filtration process for biological products

Typical Flow Characteristics

Water Flow Rate and Pressure Drop-Alipore® DPHC 0.65+0.45 µm Cartridge Filters



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⊕ Product Specifications - Alicap® Capsule Filters

		L5	L10	L20	L30	T10	T20	T30
Product Specifications	Body Diameter	92 mm	92 mm	92 mm	92 mm	92 mm	92 mm	92 mm
	Maximum Width	132 mm	132 mm	132 mm	132 mm	132 mm	132 mm	132 mm
	Maximum Length	211 mm	330 mm	575 mm	830 mm	350 mm	596 mm	851 mm
Materials of Construction	Membrane	Hydrophilic polyethersulfone (PES)						
	Supporting Layer	Polypropylene (PP)						
	O-rings	Silicone						
	Core/Cage/End caps/Housing	Polypropylene (PP)						
Working Characteristics	Maximum Differential Pressure	Forward: 7.0 bar (101.5 psi) @ 25°C/3.0 bar (43.5 psi) @ 80°C Reverse: 3.0 bar (43.5 psi) @ 25°C/1.0 bar (14.5 psi) @ 80°C						
	Sterilization Resistance	Autoclave(A&G): 131°C, 30 min, 15 cycles Gamma-compatible (G): 45 kGy *Capsule filters can't be sterilized by SIP, sterile type capsule filters can't be sterilized again						
	Effective Filtration Area (Single layer)	0.32 m²	0.65 m²	1.30 m²	1.95 m²	0.65 m²	1.30 m²	1.95 m²
	Effective Filtration Area (Double layer)	0.28 m²	0.55 m²	1.10 m²	1.65 m²	0.55 m²	1.10 m²	1.65 m²
	Pore Size	0.45 µm, 0.65 µm, 0.8 µm, 1.2 µm (Supports arbitrary combinations of dual-layer pore sizes as specified above)						
	Biological Safety	All construction components meet the biological safety requirements referring to USP<88> Class VI plastic and USP<87>						
	Indirect Food Additive	All component materials meet the requirements of Indirect Food Additive cited in EU 1935/2004/EC and FDA 21 CFR 177-182						
	Cleanliness	Meets the requirements for a 'non-fiber releasing' filter defined in FDA 21 CFR 211.72 and 210.3 (b) (5) (6), and particulate matter meets the requirements of USP<788>						
	Endotoxin	Endotoxin<0.25 EU/mL by LAL test method, which complies with the requirements of USP<85>						
	TOC/Conductivity	TOC<0.5 mg/L, Conductivity<1.3 µS/cm						
	Manufacturing Integrity	100% integrity test passed						
	Manufacturing Environment	Manufactured in conformance with cGMP						

⊕ Ordering Information

Format	Membrane material	Membrane series	Pore size	Length	Capsule connector
K=L-type Capsule T=T-type Capsule	E=PES	D=D series	04=0.45 µm 06=0.65 µm 08=0.8 µm 1U=1.2 µm	5: Alicap® L5 1: Alicap® L10 2: Alicap® L20 3: Alicap® L30	T1: 38 mm(1 1/2") Sanitary flange inlet and outlet B4: 13 mm(1/2") Single-stage hose inlet and outlet
O-ring	Package	Sterilization			
S=Silicone	1=1/PK	A=Autoclavable G=Gamma compatible S=Sterile			

• Pore Size:

Single layer: 0.45 µm, 0.65 µm, 0.8 µm, and 1.2 µm.

Double layer: Support arbitrary combinations of pore sizes from the above specifications.

• Connector:

Alicap® L5/L10/L20/L30, available with B4, T1 Connector; Alicap® T10/T20/T30, available with T1 Connector.

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⊕ Product Specifications - Cartridge Filters

Product Specifications		5 inch	10 inch	20 inch	30 inch
	Diameter	69 mm	69 mm	69 mm	69 mm
	Maximum Length	155 mm	318 mm	566 mm	813 mm
Materials of Construction	Membrane	Hydrophilic polyethersulfone (PES)			
	Supporting Layer	Polypropylene (PP)			
	O-rings	Silicone, Ethylene propylene diene monomer (EPDM), FEP/PFA encapsulated O-rings			
	Core/Cage/End caps/Adaptor	Polypropylene (PP)			
Working Characteristics	Maximum Differential Pressure	Forward: 7.0 bar (101.5 psi) @ 25°C/3.0 bar (43.5 psi) @ 80°C Reverse: 3.0 bar (43.5 psi) @ 25°C/1.0 bar (14.5 psi) @ 80°C			
	Sterilization Resistance	Steam-In-Place: 135°C, 30 min, 50 cycles Autoclave: 135°C, 30 min, 50 cycles			
	Effective Filtration Area	0.32 m ²	0.65 m ²	1.30 m ²	1.95 m ²
	Pore Size	0.45 µm, 0.65 µm, 0.8 µm, 1.2 µm (Supports arbitrary combinations of dual-layer pore sizes as specified above)			
	Biological Safety	All construction components meet the biological safety requirements referring to USP<88> Class VI plastic and USP<87>			
	Indirect Food Additive	All component materials meet the requirements of Indirect Food Additive cited in EU 1935/2004/EC and FDA 21 CFR 177-182			
	Cleanliness	Meets the requirements for a 'non-fiber releasing' filter defined in FDA 21 CFR 211.72 and 210.3 (b) (5) (6), and particulate matter meets the requirements of USP<788>			
	Endotoxin	Endotoxin<0.25 EU/mL by LAL test method, which complies with the requirements of USP<85>			
	TOC/Conductivity	TOC<0.5 mg/L, Conductivity<1.3 µS/cm			
	Manufacturing Integrity	100% integrity test passed			
	Manufacturing Environment	Manufactured in conformance with cGMP			

⊕ Ordering Information

Format	Membrane material	Membrane series	Pore size	Length	Cartridge adaptor
C=Cartridge	E=PES	D=D series	04=0.45 µm 06=0.65 µm 08=0.8 µm 1U=1.2 µm	5=5 inch 1=10 inch 2=20 inch 3=30 inch	7=226, Spearhead with fins 2=226, Flat end with fins(5 inch)
O-ring	Package				
S=Silicone T=EPDM B=FEP/PFA encapsulated O-rings	1=1/PK 3=3/PK(20&30 inch)				

• Pore Size:

Single layer: 0.45 µm, 0.65 µm, 0.8 µm, and 1.2 µm.

Double layer: Support arbitrary combinations of pore sizes from the above specifications.