

Alipore® DHR High Retention Hydrophilic PES Filter

Polyethersulfone (PES)

High Capacity

High Flux

Process Economics



Product Introduction

Alioth Alipore® DHR filters feature a 0.1 μm rated membrane and a built-in 0.2 μm hydrophilic asymmetric PES prefilter. This design delivers high flow rate, high throughput, and exceptional retention rates for mycoplasma and bacterial, making it ideal for applications that require enhanced sterility assurance and where the risk of mycoplasma contamination is increasing, such as culture media filtration and bioreactor feeds.

Key Features and Benefits

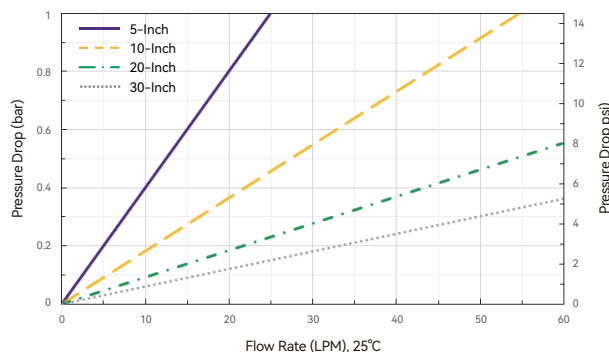
- Reliable mycoplasma and bacterial retention performance
- High flux and high capacity
- 100% integrity test passed
- Consistent scale-up performance from lab to commercial manufacturing

Typical Applications

- Bioreactor feeds
- Serum filtration
- Culture media filtration
- Buffer filtration
- Intermediate product filtration
- Final fill filtration

Typical Flow Characteristics

Water Flow Rate and Pressure Drop-Alipore® DHR 0.2+0.1 μm Cartridge Filters



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⊕ Product Specifications - Alicap® Capsule Filters

		L300	L600	L02	L04	L5	L10	L20	L30	T10	T20	T30	
Product Specifications	Body Diameter	67 mm	67 mm	72 mm	72 mm	92 mm	92 mm	92 mm	92 mm	92 mm	92 mm	92 mm	
	Maximum Width	75 mm	75 mm	97 mm	97 mm	132 mm	132 mm	132 mm	132 mm	132 mm	132 mm	132 mm	
	Maximum Length	98.5 mm	120 mm	161 mm	214 mm	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)											
Integrity Testing	Diffusion Flow(mL/min)	Test pressure 4000 mbar (58 psi) (20°C, compressed air)											
		≤ 1.5	≤ 3	≤ 6	≤ 12	≤ 15	≤ 30	≤ 60	≤ 90	≤ 30	≤ 60	≤ 90	
Working Characteristics	Maximum Differential Pressure	Forward: 5.0 bar (72.5 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	Alicap® L300/L600/L02/L04: Autoclave(A&G): 131°C, 30 min, 5 cycles Gamma-compatible (G): 25-45 kGy *Capsule filters can't be sterilized by SIP, sterile type capsule filters can't be sterilized again							Alicap® L5/L10/L20/L30/T10/T20/T30: Autoclave(A&G): 131°C, 30 min, 15 cycles Gamma-compatible (G): 25-45 kGy *Capsule filters can't be sterilized by SIP, sterile type capsule filters can't be sterilized again				
	Effective Filtration Area	230 cm²	430 cm²	0.11 m²	0.19 m²	0.28 m²	0.55 m²	1.1 m²	1.65 m²	0.55 m²	1.1 m²	1.65 m²	
	Pore Size	0.2+0.1 μm											
	Microbial Retention	>10 ⁷ cfu/cm² B. <i>diminuta</i> (ATCC® 19146™); >10 ⁷ cfu/cm² A. <i>laidlawii</i> (ATCC® 23206™)											
	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	21=0.2+0.1 µm	S2: Alicap® L300 S3: Alicap® L600 M1: Alicap® L02 M3: Alicap® L04 5: Alicap® L5 1: Alicap® L10/T10 2: Alicap® L20/T20 3: Alicap® L30/T30	T1: 38 mm(1 1/2") Sanitary flange inlet and outlet T3: 19 mm(3/4") Sanitary flange inlet and outlet B4: 13 mm(1/2") Single-stage hose inlet and outlet B5: 9.6 mm(3/8") Multistage hose inlet and outlet B6: 7-13 mm(1/4"-1/2") Hose barb inlet and outlet B7: 6 mm(1/4") Multistage hose inlet and outlet
O-ring	Package	Sterilization			
S=Silicone	1=1/PK	A=Autoclavable G=Gamma compatible S=Sterile			

• Connector:

Alicap® L300/L600, available with B6 Connector; Alicap® L02/L04, available with T1, T3, B5, B7 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)			
Integrity Testing	Diffusion Flow	Test pressure 4000 mbar (58 psi) (20°C, compressed air)			
		≤15 mL/min	≤30 mL/min	≤60 mL/min	≤90 mL/min
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: 131°C, 30 min, 50 cycles			
	Effective Filtration Area	0.28 m ²	0.55 m ²	1.1 m ²	1.65 m ²
	Pore Size	0.2+0.1 µm			
	Bacterial Retention	>10 ⁷ cfu/cm ² <i>B. diminuta</i> (ATCC® 19146™); >10 ⁷ cfu/cm ² <i>A. laidlawii</i> (ATCC® 23206™)			
	Microbial 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 C=Cartridge	Membrane material E=PES	Membrane series D=D series	Pore size 21=0.2+0.1 µm	Length 5=5 inch 1=10 inch 2=20 inch 3=30 inch	Cartridge adaptor 7=226, Spearhead with fins 2=226, Flat end with fins (5 inch)
O-ring S=Silicone T=EPDM B=FEP/PFA encapsulated O-rings	Package 1=1/PK 3=3/PK (20&30 inch)				