

Capsules- Modified Polyethersulfone Filters



amcFilterCap capsule filters are compact disposable filters specifically designed, constructed, and tested to provide reliable, consistent retention. They incorporate one layer of *amcAccupor* membrane (hydrophilic polyethersulfone membrane) whose special unobstructed flow properties and sharp particle cut-off result in high flow rate and throughput.

These filters last longer and retain more contaminants than other disposable filters made with other membranes.

amcFilterCap filters are available in a variety of pore sizes from 0.1 μm , 0.2 μm , 0.45 μm , 0.65 μm , 0.8 μm , to 1.2 μm and four sizes: ***amcFilterCap-S***, ***amcFilterCap-M***, ***amcFilterCap-L*** and ***amcFilterCap-J*** with effective filtration areas of 900 cm^2 , 2,200 cm^2 , 3,400 cm^2 and 4,000 cm^2 respectively, for small to large filtration volumes. There are two upstream vents for complete venting when initiating liquid filtration.

amcFilterCap filters consist of only two materials, polyethersulfone and polypropylene, offering a high degree of cleanliness and low extractables. Unlike cartridge filters requiring the housing to fit in, *amcFilterCap* filters gives the efficiency of *amcHydroFlow* cartridges in a self contained filtration device, ideal for point-of-use applications and small volume batch filtration.

Performance Advantages

Hydrophilic *amcAccupor* polyethersulfone membrane offers superior flow rates, cleanliness, and throughput

Provides excellent resistance to sanitizing agents such as hot water, concentrated hydrogen peroxide, and active chlorine components

100% integrity tested on filter element to ensure optimal quality product

Use of thermal welding technology during assembling process to eliminate the potential for extractables to be released from sealing adhesives

***amc*FilterCap**

Compact size of filter allows filtration within confined areas and minimizes storage space requirements

Sterilized with gamma irradiation (upon requested) eliminates potential for contamination by cytotoxic EtO residuals; ready to use

Typical Applications

Parenterals, ophthalmics, oral and topical medicines, serum, tissue culture media, wash and rinse water, diagnostic reagents, buffers, vaccines, bottle and vial washers, dry compressed gases, make-up water

Specifications

Materials of Construction

Filter Media: Single layer of *amc*Accupor hydrophilic polyethersulfone membrane

Filter Support Material and structural Components: Polypropylene

Housing: Polypropylene

Sealing Method: Thermal bonding

Vent Plug: Polypropylene

Overall Length (Excluding Inlet/Outlet Adapter)

*amc*FilterCap-S: 6.4 cm (2.5 in)

*amc*FilterCap-M: 11.2 cm (4.4 in)

*amc*FilterCap-L: 16.0 cm (6.3 in)

*amc*FilterCap-J: 14.2 cm (5.6 in)

Diameter

*amc*FilterCap-S: 7.5 cm (3.0 in)

*amc*FilterCap-M: 7.5 cm (3.0 in)

*amc*FilterCap-L: 7.5 cm (3.0 in)

*amc*FilterCap-J: 9.5 cm (3.7 in)

Nominal Pore Size

0.1, 0.2, 0.45, 0.65, 0.8, 1.2 μm

Typical Effective Filtration Area

*amc*FilterCap-S: 900 cm^2

*amc*FilterCap-M: 2,200 cm^2

*amc*FilterCap-L: 3,400 cm^2

*amc*FilterCap-J: 4,000 cm^2

Maximum Operating Temperature

60°C at 30 psi (2.1 bar) in aqueous solution

Sterilization/Sanitization Methods

Autoclave: Multiple 30 minute liquid cycles at 121°C for non-gamma resistant grade.

Irradiation: Sterilized by gamma irradiation. If desired, autoclave once only at 121°C for 20 minutes for gamma resistant grade.

Maximum Differential Pressure

Continuous: 60 psi (4.1 bar) at ambient temperature

Momentary: 100 psi (7.0 bar) at ambient temperature

Minimum Water Bubble Point

0.1 µm: ≥28 psi (2.0 bar) in ethanol

0.2 µm: ≥49 psi (3.4 bar)

0.45 µm: ≥32 psi (2.3 bar)

0.65 µm: ≥22 psi (1.5 bar)

0.8 µm: ≥12 psi (0.8 bar)

1.2 µm: ≥6 psi (0.4 bar)

Typical Water Flow Rate

0.1µm:

amcFilterCap-S: 0.4 lpm/psi (0.7 lpm/0.1 bar)

amcFilterCap-M: 0.8 lpm/psi (1.3 lpm/0.1 bar)

amcFilterCap-L: 1.2 lpm/psi (1.8 lpm/0.1 bar)

amcFilterCap-J: 2.6 lpm/psi (3.8 lpm/0.1 bar)

0.2 µm:

amcFilterCap-S: 1.2 lpm/psi (1.6 lpm/0.1 bar)

amcFilterCap-M: 2.4 lpm/psi (3.5 lpm/0.1 bar)

amcFilterCap-L: 3.6 lpm/psi (5.3 lpm/0.1 bar)

amcFilterCap-J: 7.0 lpm/psi (10.0 lpm/0.1 bar)

0.45 µm:

amcFilterCap-S: 2.1 lpm/psi (3.1 lpm/0.1 bar)

amcFilterCap-M: 4.2 lpm/psi (6.3 lpm/0.1 bar)

amcFilterCap-L: 6.6 lpm/psi (10.0 lpm/0.1 bar)

amcFilterCap-J: 12.3 lpm/psi (17.6 lpm/0.1 bar)

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0.65 µm:

amcFilterCap-S: 2.7 lpm/psi (4.2 lpm/0.1 bar)

amcFilterCap-M: 5.2 lpm/psi (8.4 lpm/0.1 bar)

amcFilterCap-L: 9.0 lpm/psi (13.7 lpm/0.1 bar)

amcFilterCap-J: 15.4 lpm/psi (22.0 lpm/0.1 bar)

0.8 µm:

amcFilterCap-S: 3.9 lpm/psi 5.9 lpm/0.1 bar)

amcFilterCap-M: 8.0 lpm/psi (10.7 lpm/0.1 bar)

amcFilterCap-L: 12.5 lpm/psi (18.7 lpm/0.1 bar)

amcFilterCap-J: 23.2 lpm/psi (33.0 lpm/0.1 bar)

1.2 µm:

amcFilterCap-S: 8.5 lpm/psi (12.8 lpm/0.1 bar)

amcFilterCap-M: 17.4 lpm/psi (26.2 lpm/0.1 bar)

amcFilterCap-L: 26.7 lpm/psi (40.0 lpm/0.1 bar)

amcFilterCap-J: 31.0 lpm/psi (44.0 lpm/0.1 bar)

Oxidizable Substances

Filtrate meets USP XXII requirements for purified water with <500 mL flush after autoclaving

Biosafety

All components meet USP Class VI-121°C Plastic Tests

Endotoxin Level

< 0.25 EU/mL using Limulus Amoebocyte Lysate (LAL) test

Typical Non-Volatile Residue

amcFilterCap-S: <2 mg/device

amcFilterCap-M: <4 mg/device

amcFilterCap-L: <8 mg/device

amcFilterCap-J: <10 mg/device

Inlet/Outlet Connections

1/4-1/2 inch stepped hose barb (S)

1/2 hose barb (H)

1/2 inch NPTM (T)

1-1/2 inch Sanitary Flange (F)

* For "J" type, only 3/4 inch NPTM available

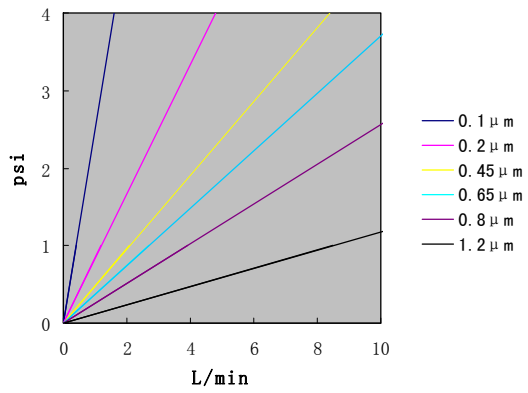
Bacterial Retention

For more information, please contact us

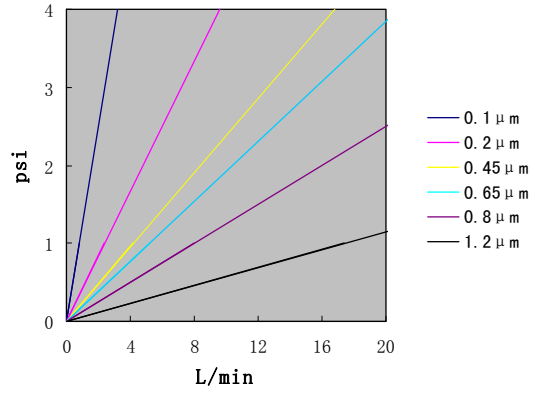
amcFilterCap

Typical Water Flow Rates (10 inch length) :

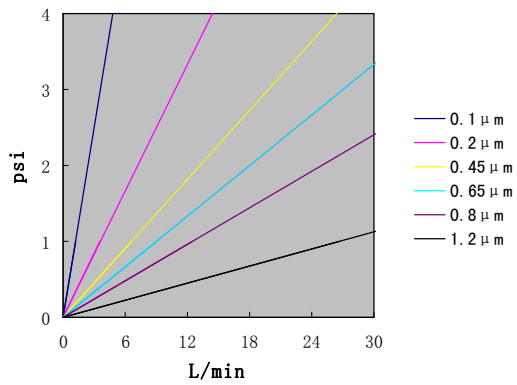
amcFilterCap-S



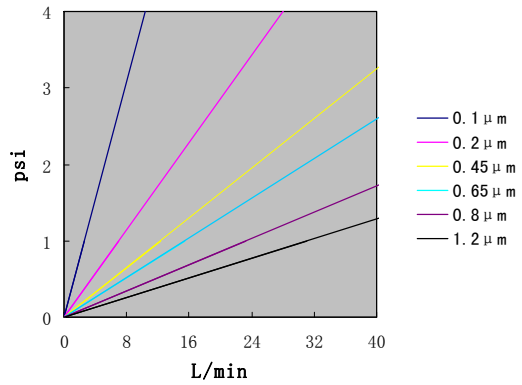
amcFilterCap-M



amcFilterCap-L



amcFilterCap-J



Ordering Information

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■ Rated Pore Size	10	0.1 µm
	20	0.2 µm
	45	0.45 µm
	65	0.65 µm
	80	0.8 µm
	12	1.2 µm
● Length	S	2.5 inch (6.4 cm)
	M	4.4 inch (11.2 cm)
	L	6.3 inch (16.0 cm)
	J	5.6 inch (14.2 cm)
▼ Grade	0	Non-Sterile
	1	Sterile
▲ Inlet Connector	S	1/4-1/2 inch Stepped Hose Barb
	H	1/2 inch Hose Barb
	T	1/2 inch NPTM
	F	1-1/2 inch Sanitary Flange
	Q	Quick Connect Hose Nipple
	N*	3/4 inch NPTM (only for "J" type)
◆ Outlet Connector	S	1/4-1/2 inch Stepped Hose Barb
	H	1/2 inch Hose Barb
	T	1/2 inch NPTM
	F	1-1/2 inch Sanitary Flange
	N*	3/4 inch NPTM (only for "J" type)

* For "J" type, only 3/4 inch NPTM available