

Capsules- Hydrophobic PTFE Filters



***amc*PTFECap** filters are specifically designed using advanced technology in air and liquid filtration industry. They incorporate PTFE membrane, i.e., hydrophobic polytetrafluoroethylene membrane, to provide great particle-retention capability and high performance reliability.

***amc*PTFECap** filters are constructed of 0.1 μ m and 0.2 μ m PTFE membrane and polypropylene support to provide superior performance for demanding production applications. The construction of ***amc*PTFECap** filters uses thermal welding technology with polypropylene housings avoid any adhesives or glues, ensuring broad chemical compatibility and providing lower extractables.

Four different physical sizes of ***amc*PTFECap** are available to suit a variety of processing requirements.

Performance Advantages

All materials of construction are non-toxic and bio-safe, pass USP VI-121°C Plastic Tests

Quality engineered to withstand shocks, back pressure, repeated sterilizations and the rigors of process operations

Broadest chemical compatibility and lowest extractable levels

High flow rates and optimized surface area shorten processing time and reduce filter consumption

In venting applications, the hydrophobic membrane remains impervious to water condensate

Typical Applications

Process air/gas filtration, tank bioreactor or fermentor venting, filtration of organic chemicals, acids, etchants, solvents, sterile tank vent, dry compressed gases

Specifications

Material of Construction

Filter Media: Single layer of hydrophobic polytetrafluoroethylene membrane

Filter Support Material and Structural Components: Polypropylene

Housing: Polypropylene

Sealing Method: Thermal bonding

Vent Plug: Polypropylene

Nominal Pore Sizes

0.1, 0.2 μm

Typical Effective Filtration Area

*amc*PTFECap-S: 750 cm^2

*amc*PTFECap-M: 1,750 cm^2

*amc*PTFECap-L: 2,800 cm^2

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

Overall Length (Excluding Inlet/Outlet Adapter)

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

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

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

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

Diameter

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

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

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

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

Maximum Operating Temperature

60°C at 30 psi (2.1 bar)

Sterilization

121°C for multiple cycles at 15 psi (1.0 bar)

***amc*PTFECap**

Maximum Operating Pressure

60 psi (4.1 bar) at ambient temperature

Minimum Bubble Point

0.1 µm: 21 psi (1.5 bar) in ethanol

0.2 µm: 15 psi (1.1 bar) in ethanol

Typical Water Flow Rate (after ethanol prewet)

0.1 µm:

*amc*PTFECap-S: 0.2 lpm/psi (0.4 lpm/0.1 bar)

*amc*PTFECap-M: 0.7 lpm/psi (1.1 lpm/0.1 bar)

*amc*PTFECap-L: 1.1 lpm/psi (1.6 lpm/0.1 bar)

*amc*PTFECap-J: 1.6 lpm/psi (2.4 lpm/0.1 bar)

0.2 µm:

*amc*PTFECap-S: 0.6 lpm/psi (0.9 lpm/0.1 bar)

*amc*PTFECap-M: 1.4 lpm/psi (2.1 lpm/0.1 bar)

*amc*PTFECap-L: 2.2 lpm/psi (3.3 lpm/0.1 bar)

*amc*PTFECap-J: 3.3 lpm/psi (4.8 lpm/0.1 bar)

Typical Air Flow Rates

0.1 µm:

*amc*PTFECap-S: 1.9 cfm/psi (4.6 Nm³/hr/0.1 bar)

*amc*PTFECap-M: 4.6 cfm/psi (11 Nm³/hr/0.1 bar)

*amc*PTFECap-L: 7.2 cfm/psi (17.3 Nm³/hr/0.1 bar)

*amc*PTFECap-J: 10.4 cfm/psi (24 Nm³/hr/0.1 bar)

0.2 µm:

*amc*PTFECap-S: 3.0 cfm/psi (7.2 Nm³/hr/0.1 bar)

*amc*PTFECap-M: 7.1 cfm/psi (17.1 Nm³/hr/0.1 bar)

*amc*PTFECap-L: 11.2 cfm/psi (26.8 Nm³/hr/0.1 bar)

*amc*PTFECap-J: 16 cfm/psi (38 Nm³/hr/0.1 bar)

Oxidizables Substances

USP meet after 500 mL flush after autoclave

Biosafety

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

Endotoxicity Level

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

amcPTFECap

Inlet/Outlet Connections

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

1/2 hose barb (H)

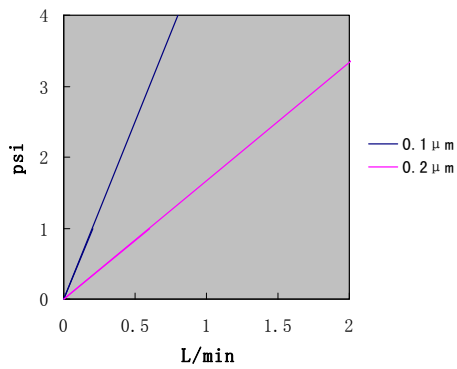
1/2 inch NPTM (T)

1-1/2 inch sanitary flange (F)

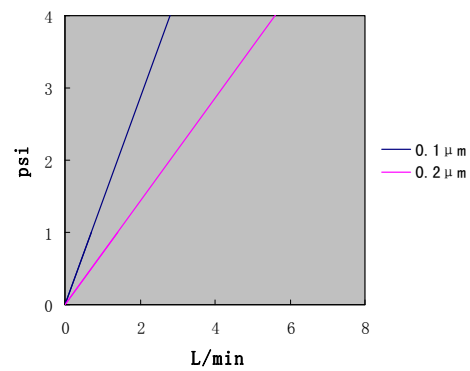
*For "J" type, only 3/4 inch NPTM available

Typical Water Flow Rates (10 inch length) :

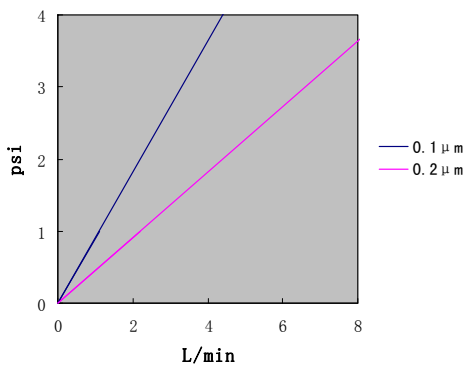
amcPTFECap-S



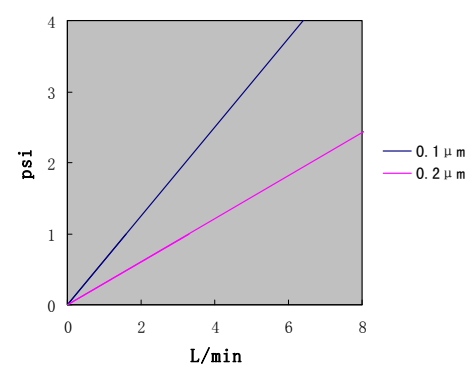
amcPTFECap-M



amcPTFECap-L



amcPTFECap-J



Ordering Information

TFC ■ ■ ● ▼ ▲ ◆

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|---------------------|----|-----------------------------------|
| ■ Rated Pore Size | 10 | 0.1 µm |
| | 20 | 0.2 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