

Filter cartridge amaFine BC

1. Introduction

The amaFine BC PES filter cartridge uses a specially designed polyethersulphone membrane. The filter membrane has an asymmetrical configuration where the specific defining matrix is embedded between two matrices with larger pores. The asymmetrical configuration and the protection of the sterile zone against mechanical damage are perfectly combined in a unique design to allow a filter cartridge with a high degree of integrity. Polyethersulphone is extremely resistant to attacks by oxidizing agents in pure water applications, acid and basic applications. The amaFine BC is especially designed for the safe and reliable sterile filtration of a wide variety of solutions.



2. Features

- Extended effective filtration area
- Testable in situ
- Steamable in situ or in autoclave
- Construction materials chemically and biologically inert according to FDA and EEC directives
- Manufacturing in clean room, class 10,000 according cGMP guidelines
- Absolute filter ratings
- 100% integrity tested in clean room, class 100

4. Product/Performance specifications

Filter medium : polyethersulphone membrane
 Support medium : polyester
 Hardware : polypropylene
 Longitudinal weld : ultrasonic welding
 End cap seal : thermally welded
 Gaskets/O-rings : silicone, EPDM, Viton®, other materials on request

Dimensions

External diameter : 70 mm
 Length : see ordering information
 Filtration area : 0.8 m²/10" cartridge

Maximum recommended differential pressure

Design : 5.0 bar at 25 °C
 Operating : 2.0 bar at 25 °C
 Maximum operating temperature : 65 °C

Rinse up volume

The recommended rinse up volume is 3 liter per 10" length cartridge.

3. Food safety

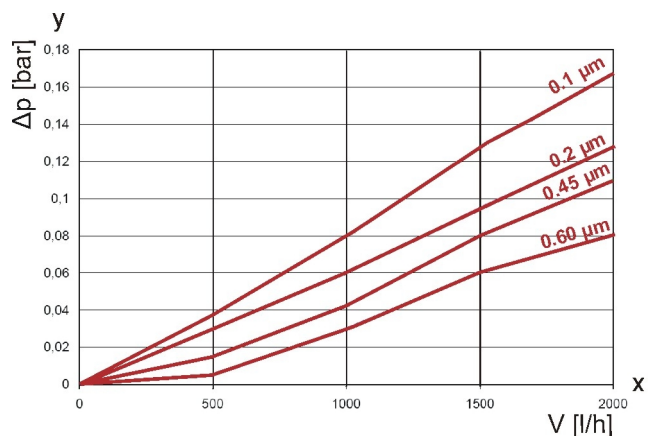
Food safety

The filter cartridges meet the European Directives 82/711/EEC, 85/572/EEC, 89/109/EEC, 93/8/EEC, 97/48/EEC, 2001/61/EC, 2002/16/EC, 2002/72/EC and 2004/19/EC for food contact and global migration. All materials used are listed in the FDA CFR21 regulations.

Bio safety

The components of the filter cartridges (excl. O-rings and gaskets) pass the USP Biological Reactivity and Chemical-Physical tests for CLASS VI plastics.

5. Water flow rate for 10" cartridge



x: Flow rate

y: Clean pressure drop

Cartridge Code	Absolute rating in liquids	Bacterial retention	Acceptable limit for pressure hold test* on 10" cartridge	Acceptable limit for water diffusion test for 10" cartridge (ml/min)
BC 0.1	0.1 micron		≤ 0.12 bar @ 2.8 bar	≤ 18 @ 2.8 bar
BC 0.2	0.2 micron	≥ 10 ¹⁰ Pseudomonas aeruginosa	≤ 0.10 bar @ 1.8 bar	≤ 15 @ 1.8 bar
BC 0.45	0.45 micron	≥ 10 ⁶⁻⁷ Pseudomonas aeruginosa	≤ 0.13 bar @ 1.2 bar	≤ 20 @ 1.2 bar
BC 0.65	0.65 micron		≤ 0.13 bar @ 0.9 bar	≤ 20 @ 0.9 bar

* The values are related to 5 minutes and are indicative as they depend on volume of the housing upstream the filter element

6. Ordering code

Example

Cartridge type	Micron rating [μm]	Nominal length [inch]	Hardware material	Cartridge style	O-Ring material
amaFine BC	0.2	20	U	X7	S
	0.1	10 (254 mm)	U=polypropylene	X3	S=Silicone
	0.2	20 (508 mm)		X7	E=EPDM
	0.45	30 (762 mm)		X8	V=Viton
	0.65	40 (1016 mm)			

X3 = SOE with external 222 O-rings, X7=SOE with fin end, bayonet and external 226 O-Rings, X8=SOE with fin end and external 222 O-Rings