

MAHLE

Industrial Filtration

Filter Cartridge amaGuard PP

1. Introduction

The amaGuard PP pleated filter cartridges use high quality filter media creating a high performance filter cartridge. The filter medium used in the 0.2 μm rated amaGuard PP is cast polysulphone. The amaGuard PP rated 0.25 μm and above use filter media consisting of a web micro-denier polypropylene fibres produced in a melt blowing process. The web is thermally fused to produce a non-fibre releasing filter medium. The unique design and filter media ensures a high flow, low pressure drops and high dirt load capacity. The amaGuard PP filter cartridge can be used for liquid as well as for gas application.

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2. Features

- High capacities at low pressure drops
- Rated at 90% efficiency
- No fibre release
- Broad chemical compatibility
- High dirt load capacity
- FDA listed materials
- Biologically inert material

4. Product/Performance specifications

| | |
|--|---|
| Filter medium | : polypropylene polysulphone for 0.2 micron |
| Support medium | : polypropylene |
| Hardware | : polypropylene |
| End cap seal | : thermally bonded |
| Gaskets/O-rings | : silicone, EPDM, Buna-N, Viton®, PTFE encapsulated silicone |
| <i>Dimensions</i> | |
| External diameter | : 66 mm |
| Length | : see ordering information |
| Filtration area | : 0.8 m ² /10" cartridge |
| <i>Maximum recommended differential pressure</i> | |
| Design | : 5.1 bar at 20 °C / 2.8 bar at 65 °C |
| Operating | : 2.5 bar |
| Maximum operating temperature | : 65 °C |

3. Sterilisation and Food safety

Sterilisation

The cartridges can be sterilised in an autoclave for 30 minutes at 121 °C under no end load conditions.

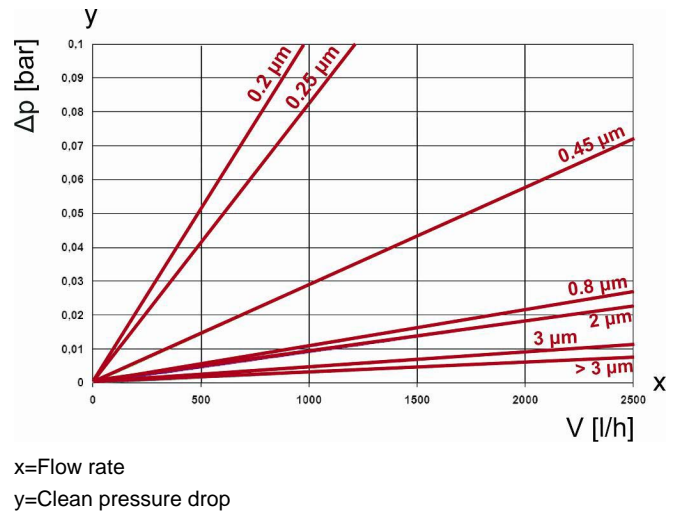
Food safety

All materials used are listed in the FDA CFR21 regulations.

Bio safety

The polypropylene 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



| Particle retention [μm] | | | | | | | |
|-------------------------|------|---------|---------------------------------|----------------|-----|---------|---------------------------------|
| Cartridge type | 90% | ≥ 99.9% | DOP Retention (for gas service) | Cartridge type | 90% | ≥ 99.9% | DOP Retention (for gas service) |
| PP0.2 | 0.20 | 0.5 | 99.999% | PP3 | 3 | 7 | - |
| PP0.25 | 0.25 | 1 | 99.97% | PP5 | 5 | 12 | - |
| PP0.45 | 0.45 | 1.2 | 99.93% | PP10 | 10 | 15 | - |
| PP0.8 | 0.8 | 2.5 | 99.90% | PP30 | 30 | 40 | - |
| PP2 | 2 | 5 | - | | | | |

6. Ordering code

Example

| Cartridge type | Micron rating | Nominal length [inch] | Hardware material | Cartridge style | O-Ring material |
|----------------|---|--|--|----------------------|--|
| amaGuard PP | 1 | 10 | U | X7 | S |
| | 0.2, 0.25, 0.45, 0.8, 2, 3, 5, 10, 30 | 4 (102 mm) 9.75 (248 mm) 10 (254 mm) 19.5 (495 mm) 20 (508 mm) 29.25 (743 mm) 30 (762 mm) 39 (991 mm) 40 (1016 mm) | U=polypropylene | X3 X4 X7 X8 | S=Silicone V=Viton® N=Buna-N E=EPDM T=PTFE encapsulated silicone F=PTFE encapsulated Viton® |
| | | | X3=SOE with external 222 O-rings, X4=DOE with flat gaskets, X7=SOE with fin end, bayonet and external 226 O-Rings, X8=SOE with fin end and external 222 O- Rings | | |

MAHLE Industrial Filtration (Benelux) B.V., P.O.Box 396, 1800 AJ Alkmaar - The Netherlands, Phone +31 (0) 72 5273400
Fax +31 (0) 72 5212507, mahle.amafilter@mahle.com, <http://www.mahle-industrialfiltration.com>, 10/2009