

Filter cartridge amaGuard GF Plus

1. Introduction

The amaGuard GF Plus filter cartridge uses a specially designed positively charged polypropylene layer mixed with borosilicate microfibrils. The positive charge of the filter media interacts with negatively charged contaminants and therefore very fine particles are filtered. This specially designed filter media together with the pleating construction makes the amaGuard GF Plus filter cartridge a highly efficient cartridge for the filtration of colloidal particles. amaGuard GF Plus is especially designed for the safe and reliable filtration of a wide variety of solutions.



2. Features

- Positively charged filter medium
- Extended effective filtration area
- Steamable in situ or by autoclave
- Construction materials are chemically and biologically inert according to FDA and EEC directives
- Manufactured in a controlled environment according to cGMP guidelines
- Absolute filter rating (β -ratio ≥ 5000)

4. Product/Performance specifications

Filter medium	: positively charge polypropylene and borosilicate microfibre
Support medium	: polypropylene
Hardware	: polypropylene
End cap seal	: ultrasonic welding
Gaskets/O-rings	: silicone, EPDM, Viton®, other materials on request

Dimensions

External diameter	: 70 mm
Length	: see ordering information
Filtration area	: 0.8 m ² /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

3. Sterilisation/sanitation and Food safety

Sterilisation/sanitisation

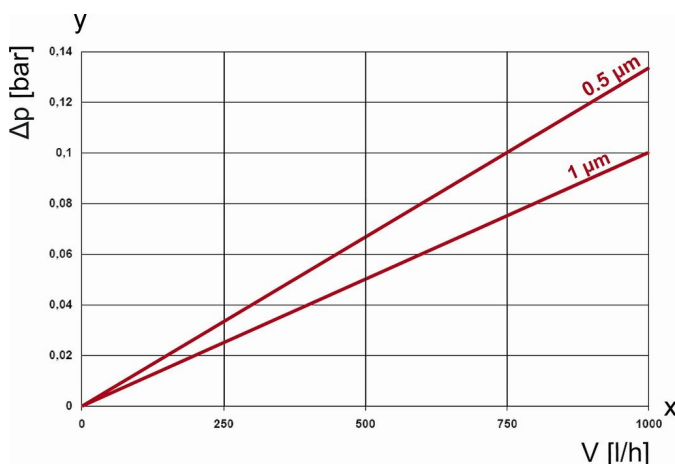
Steam sterilisation cumulative time is 30 hours at 125 °C with cycles of 30 minutes. Hot water sanitisation with max 80 °C water.

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 21CFR regulations.

5. Water flow rate for 10" cartridge



x=Flow rate

y=Clean pressure drop

Cartridge code	Absolute rating in liquid	Bacterial retention
GFP 0.5	0.5 micron	$\geq 10^4$ Brevundimonas diminuta $\geq 10^7$ Serratia marcescens
GFP 1	1.0 micron	$\geq 10^7$ Leuconostoc oenos $\geq 10^{10}$ Saccharomuces cerevisiae

6. Ordering code

Example

Cartridge type	Micron rating [μm]	Nominal length [inch]	Hardware material	Cartridge style	O-Ring material
amaGuard GFP	1	10	U	X7	S
	0.5	10 (254 mm)	U=polypropylene	X3	S=Silicone
	1	20 (508 mm)		X7	E=EPDM
		30 (762 mm)		X8	V=Viton®
		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

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