

Ultipor® GF Plus Filter Cartridges For Particle Removal

Ultipor GF Plus filter cartridges are made with positive Zeta modified glass fiber media for enhanced filtration efficiency for fluids in the food and beverage industry.

Description

In addition to a high particulate removal efficiency and low pressure drop, the positive charge enables the Ultipor GF Plus filter to effectively remove submicron haze particles from a wide variety of aqueous and slightly alcoholic food and beverage products. The single open ended (SOE) configuration is designed to fit into sanitary housings.

Ultipor GF Plus filter cartridges are suitable for exposure to repeated hot water and *in situ* steam sanitization cycles for longer service life.

Features and Benefits

Features	Benefits
Fixed fiber matrix with no adhesives or surfactants	<ul style="list-style-type: none"> • Process reliability • Highly stable structure maintains performance with pulsed flow conditions • Consistent filtrate quality
Pleated media with high dirt holding capacity and positive Zeta potential	<ul style="list-style-type: none"> • Long service life • Low operating costs • Hot water sanitizable • Steam sterilizable
Multiple adaptor options	<ul style="list-style-type: none"> • Easy installation into sanitary housings

Quality

- Cartridges produced in a controlled environment
- Manufactured according to ISO 9001:2008 certified Quality Management System



Ultipor GF Plus Filters

Food Contact Compliance

Please refer to the Pall website <http://www.pall.com/foodandbev> for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.

Materials of Construction

Filter Medium	Resin bonded glass fibers on a polyester substrate
Support and Drainage	Polyester
Core, Cage, End Cap and Fin End	Polypropylene
Adaptor	Polypropylene with internal stainless steel reinforcing ring
O-ring seal	Ethylene propylene rubber or Silicone elastomer

Technical Information

Operating Characteristics in Compatible Fluids¹

Maximum Differential Pressure	Operating Temperature
5.5 bard (80 psid) (forward pressure)	50 °C (122 °F)
4.1 bard (60 psid) (forward pressure)	80 °C (176 °F)
300 mbard (4.4 psid) (reverse pressure)	In normal operation or <i>in-situ</i> steam sterilization

¹ Compatible fluids are defined as those which do not swell, soften or attack any of the filter components.

Sterilization and Sanitization

Media	Temperature	Cumulative Time / 30 minute Cycles ²
Steam	125 °C (257 °F)	25 hours / 50 cycles
Hot Water	85 °C (185 °F)	25 hours / 50 cycles

² Measured under laboratory test conditions. The actual cumulative time depends on the process conditions. For applications requiring Sterilization or Sanitization Pall recommends the use of Code 7 adaptors to ensure filter sealing after cooling. Cartridges should be cooled to system operating temperature prior to use. Contact Pall for recommended procedures.

Performance

Media	Particulate rating (β-5000)	Pressure Drop vs Liquid Flow Rate ³ per 10" element
GFHZ	≤ 1 micron	10-15 mbar at 10 L/min (0.15-0.22 psi at 2.6 US gallons/min)
GFNZ	≤ 2 micron	~7 mbar at 10 L/min (~0.1 psi at 2.6 US gallons/min)

³ Typical initial clean media differential pressure (dP) per 250 mm (10") cartridge for water at 20 °C (68 °F); viscosity 1 centipoise. For 508, 762 mm and 1016 mm configurations divide the differential pressure by 2, 3, and 4 respectively.

Ordering Information

This is a guide to the Part Numbering structure only. For specific options, please contact Pall.

Cartridge Part Number:

AB GF Z W
 Table 1 Table 2 Table 3 Table 4

Table 1 : Nominal Length

Code	Description
1	254 mm (10")
2	508 mm (20")
3	762 mm (30")
4	1016 mm (40")

Table 2 : Removal Rating

Code	Description
H	≤ 1 micron
N	≤ 2 micron

* β-5000 as determined by F2 test

Table 3 : Adaptor

Code	Description
3	SOE – single open end with flat closed end and external 222 O-rings
7	SOE – single open end with fin end, 2 locking tabs and external 226 O-rings
8	SOE – single open end with fin end and external 222 O-rings
28	SOE – single open end with fin end, 3 locking tabs and external 222 O-rings

Table 4 : O-Ring Seal Material

Code	Description
H4	Silicone Elastomer
J	Ethylene Propylene Rubber



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Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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