

# ULTA Prime GF

## FILTRATION

ULTA™ Prime GF liquid filter cartridges are utilized for the clarification, stabilization and bioburden reduction of aqueous solutions, media and biologicals. These filters have a high dirt holding capacity and exhibit exceptional flow performance compared to polypropylene filters. The hydrophilic nature of ULTA Prime GF filter cartridges also makes them more suitable for gravity fed systems.

ULTA Prime GF utilizes a glass microfiber filter medium encased within an upstream polypropylene mesh and a downstream non-woven filter support material. ULTA Prime GF filter cartridges are dimensionally stable with no media migration. The pleat pack is supported by an inner polypropylene core and outer polypropylene cage, heat bonded to polypropylene end caps.

## Features

- Micron rating range from 0.6 to 10 micron
- Wide range of end caps to allow retrofitting of existing systems
- High capacity filter media giving microbial retention
- Thermal bonded construction
- High filtration area



**Fig 1.** ULTA Prime GF cartridges and capsule.

## Materials of construction

Filtration Membrane: Glass Microfiber

Upstream Support: Polypropylene

Downstream Support: Polypropylene

Inner Support Core: Polypropylene

Outer Protection Cage: Polypropylene

End Caps: Polypropylene

Endcap Insert: 316 Stainless Steel

Standard O-rings/gaskets: Silicone/EPDM

Capsule Body: Polypropylene

Capsule Vent Seals: Silicone

## Typical applications

- Prefiltration of biopharmaceuticals including tissue culture media and protein solutions
- Ideal for biologicals such as serum and veterinary vaccines
- Provides optimal protection for final membrane filters
- Ideal for batch or small volume processes

## Food and biological safety

Materials conform to the relevant requirements of 21CFR Part 177 and current USP Plastics Class VI — 121°C and ISO 10993 equivalents. Low concentrations of surfactant may be present.

## Effective filtration area

Up to 0.6 m<sup>2</sup> (6.3 ft<sup>2</sup>) per 250 mm (10" module).

## Retention characteristics

The retention characteristics of ULTA Prime GF have been determined through controlled laboratory tests challenging with a standard aqueous suspension of ACFTD (AC Fine Test Dust) using on-line laser particle counters.

Media code β ratio	Micron rating at various efficiencies				
	>99.99% 10 000	>99.98% 50 000	>99.90% 1000	99% 100	90% 10
.60	0.60	0.57	0.54	0.32	0.20
1.0	1.00	0.95	0.90	0.70	0.50
003	3.00	2.80	1.80	1.00	0.70
005	5.00	4.70	4.50	3.50	1.00
007	7.00	6.70	6.30	4.50	2.50
010	10.00	8.00	7.00	4.80	2.80
020	20.00	16.00	14.00	10.00	6.00

## Recommended operating conditions

Up to 70°C (158°F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature		Maximum forward dP	
(°C)	(°F)	(bar)	(psi)
20	68	5.0	72
40	104	4.0	58
60	140	3.0	44
80	176	2.0	29
90	194	1.0	15
> 100 (steam)	> 212 (steam)	0.3	4

Capsules may be operated up to a temperature of 40°C (104°F) at line pressures up to 5.0 bar (72 psig) for liquids and 4.0 bar (58 psi) in air/gas.

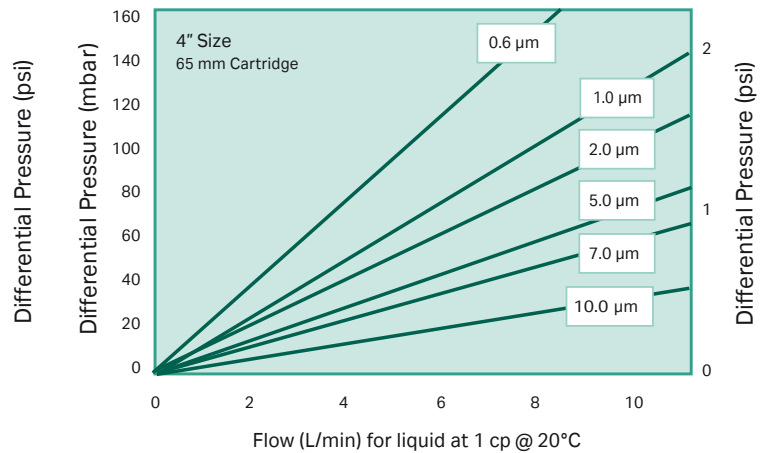
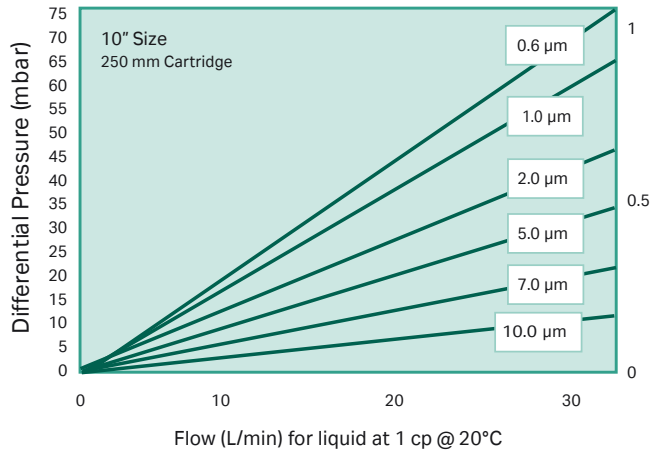
## Cleaning and sterilization

ULTA Prime GF cartridges can be repeatedly steam sterilized *in situ* or autoclaved at up to 121°C (250°F). They can be sanitized with hot water at up to 90°C (194°F) and are compatible with a wide range of chemicals. Capsules can be repeatedly autoclaved up to 121°C (250°F).

## Recommended rinse volume

Prior to use — 20 liters per 10" cartridge.

# Cartridge flow rates



## Cartridges

Device Type	Media Type		Special	Detail	Special	Micron Rating		Size	Code Cartridge	O-ring	
Digit 1	2	3	4	5	6	7	8	9	10	11	12
C = Cartridge D = Disc	G	F	Hyphen -	A	Hyphen	9 0 0 0 0 1	6 1 2 5 7 0	H = 5"  1 = 10" 2 = 20" 3 = 30"	0 = Code 0, 222 Double O-ring 7 = Code 7, 226 Locking Tab, Double O-ring/ Fin* (Flat Top 5" Only)	0	E = EPDM S = Silicone

**Example:** ULTA Prime GF, 0.6 µm, 10" 226, Silicone O-ring  
CGF-A-96170S

Hyphen	4	7	0	Disc
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## Capsules

Device Type	Media Type		Special	Detail	Special	Micron Rating		Size	Size	End Fittings	
Digit 1	2	3	4	5	6	7	8	9	10	Inlet 11	Outlet 12
K = Capsule	G	F	Hyphen -	A	Hyphen	9 0 0 0 0 1	6 1 2 5 7 0	02 = 2" 04 = 4" 06 = 6"		T = 1.5" TC G = SHB* H = 1/2" HB	T = 1.5" TC G = SHB* H = 1/2" HB

**Example:** ULTA Prime GF capsule, 1.0 µm, 4", 1/2 Hosebarb inlet, 1.5 inch TC outlet  
KGF-A-0104HT

\* Stepped Hose Barb 1/4"

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