Graver Technologies

Filtration | Separation | Purification

GFC™ Microfiberglass Filter Series

Glass Fiber Cartridges (GFC)

This high efficiency, disposable filter element is suited for a wide range of applications. The filter is constructed of pleated Borosilicate Microfiberglass filter media with greater surface area for high system flow rate.

Filter Features–Benefits

- Micron ratings from 0.2 to 30 µm– Broad application range
- Uniform pore size– High removal efficiency
- High surface area– High flow capability and dirt holding capacity
- Long service life– Minimizes maintenance costs
- Fixed pore construction– Eliminates dirt unloading at maximum differential pressure

Filter Specifications

Media:	*Borosilicate Microfiberglass with Acrylic Binder*
Inner core:	*Polypropylene*
Support layers:	*Polyester*
End caps:	*Polypropylene*
Cage:	*Polypropylene*
Gasket/O-Rings :	*Buna-N, EPDM, Silicone, Teflon Encapsulated Viton O-Rings*
Micron ratings:	*0.2, 0.45, 1.0, 3.0, 10, 30 µm*
Dimensions and Operating Parameters	
Nominal lengths:	*9,75'' 10'', 20'', 30'', 40'' (24.7, 25.4, 50.8, 76.2, 101.6 cm)*
Outside diameter:	*2.7'' (6.9 cm)*
Inside diameter:	*1.0'' (2.54 cm)*
Maximum operating temperature:	*176 °F (80°C)*
Maximum differential pressure:	*80 psid @ 70 °F (5.5 bar @ 21°C) 40 psid @ 150 °F (2.8 bar @ 65°C)*

Filter Removal Efficiency

Beta Ratio Efficiency	Beta 10 90%	Beta 20 95%	Beta 100 99%	Beta 1000 99.9%	Beta 5000 99.98%
0.2 micron	*0.2*	*0.3*	*0.6*	*0.8*	*1.0*
0.45 micron	*0.45*	*0.6*	*0.8*	*1.8*	*2.0*
1.0 micron	*1.0*	*1.3*	*2.0*	*3.5*	*4.0*
3.0 microns	*3.0*	*4.0*	*5.5*	*9.0*	*10.0*
10.0 microns	*10.0*	*12.0*	*15.0*	*17.0*	*18.0*
30.0 microns	*30.0*	*35.0*	*38.0*	*42.0*	*45.0*

$$\text{Beta Ratio} = \frac{\text{Upstream particle counts}}{\text{Downstream particle counts}}$$

The micron ratings shown at various efficiency and beta ratio value levels were determined through laboratory testing, and can be used as a guide for selecting cartridges and estimating their performance. Under actual field conditions, results may vary somewhat from the values shown due to the variability of filtration parameters.
Testing was conducted using the single-pass test method, water at 2.5 gpm/10" cartridge. Contaminants included latex beads, coarse and fine test dust. Removal efficiencies were determined using dual laser source particle counters.

Applications

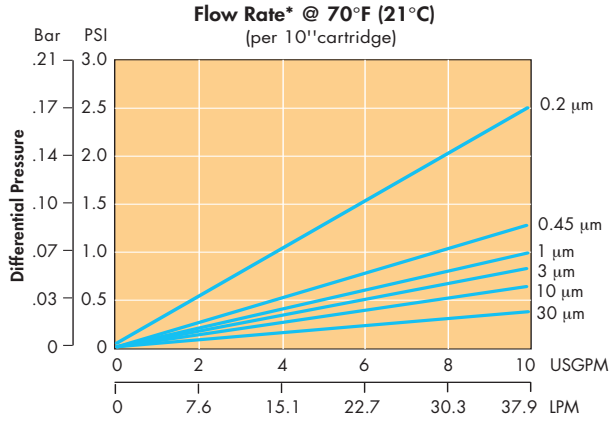
- Wine prefiltration
- Blowdown post filter
- Magnetic tape coatings
- Chemicals
- Inks
- Oil & Gas

GFC Nomenclature Information

GFC	3	-10	P7	B	-I
Filter Type GFC Series Filters	**Retention Rating (microns)** **0.2** **0.45** **1** **3** **10** **30**	**Nominal Length (inches)** **-9.75** **-10** **-20** **-30** **-40**	**End Configuration** **P** Double Open End **P2** 226/Flat Single Open End **P3** 222/Flat Single Open End **P7** 226/Fin Single Open End **P8** 222/Fin Single Open End **AM** Single open end, internal O-Ring	**Gasket or O-Ring** **S** Silicone **B** Buna-N **E** EPDM **V** Viton **T** Teflon encap. Viton (O-Rings only)	**Insert** **-I** End cap insert for steaming

Example: GFC 3-10 P7B-I

GFC FLOW RATE



* For liquids other than water, multiply pressure drop by fluid viscosity in centipoise

For more information

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