



## PREPOR GP Filter Cartridges

- liquid filters
- glass microfibre / polypropylene

PREPOR GP filter cartridges will significantly reduce numbers of yeast and spoilage organisms in beverage products to provide extremely cost-effective microbiological stabilization.

The cartridges will also 'condition' liquids and can be used to improve the filterability of products prior to terminal stabilization by thermal or filtrative methods.

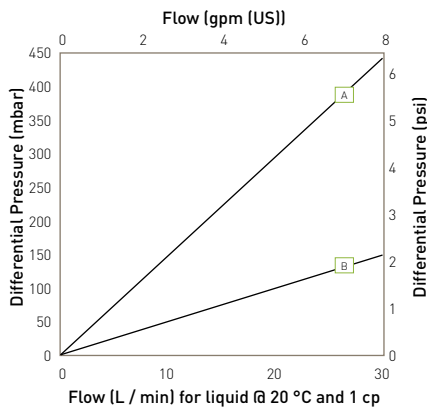
The filters utilize a unique combination of graded density glass microfibre and polypropylene media. Combined together in a pleated construction, this configuration provides a high surface area and couples the advantages of glass microfibre with the inherent strength and durability of polypropylene.

### Features and Benefits

- Microbial reduction in beverage applications
- Ideally suited for yeast removal and bacterial reduction to provide short-term microbiological stability
- Fine clarification to provide bright finished product
- Adjustment of filterability of bulk liquids after tank storage transport
- Prefiltration duty to extend the lifetime of downstream microporous membrane filters



### Performance Characteristics



For K size for a given flow rate multiply 10" size differential pressure by 2

10" size (250 mm) Cartridge

## Specifications

### Materials of Construction

- Filtration Membrane: Glass Microfibre / Polypropylene
- Upstream Support: Polypropylene
- Downstream Support: Polypropylene
- Inner Support Core: Polypropylene
- Outer Protection Cage: Polypropylene
- End Caps: Polypropylene
- End Cap Insert (if applicable): 316L Stainless Steel\*  
\*Not available in B & L endcap variants
- Standard o-rings/gaskets: Silicone / EPDM
- Capsule Body: Polypropylene
- Capsule Vent Seals: Silicone

### Food and Biological Safety

Materials conform to the relevant requirements of 21CFR Part 177, EC1935 / 2004 and current USP Plastics Class VI - 121 °C and ISO10993 equivalents.

### Recommended Operating Conditions

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

Temperature		Max. Forward dP	
°C	°F	(bar)	(psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Capsules may be operated up to a temperature of 40 °C (104 °F) at line pressures up to 5.0 barg (72.51 psig) for liquids.

### Effective Filtration Area (EFA)

10'' (250 mm) Up to 0.37 m<sup>2</sup> (3.9 ft<sup>2</sup>)

### Cleaning and Sterilization

PREPOR GP cartridges can be repeatedly steam sterilized in situ or autoclaved at up to 121 °C (249.8 °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 130 °C (266 °F).

### Retention Characteristics

The retention characteristics of PREPOR GP have been determined by a combination of controlled laboratory tests and in-use monitoring for a number of organisms. Bacterial challenge testing is carried out to methods specified in ASTM F838-05.

Organism	Approx. Cell Size (µm)*	Typical Titre Reduction			
		A	B	D	E
<i>Serratia marcescens</i>	0.5 - 0.8 x 0.9 - 2.0	10 <sup>6</sup>	10 <sup>3</sup>	-	-
<i>Oenococcus oenos</i>	0.5 - 0.7 x 0.7 - 1.2	10 <sup>6</sup>	10 <sup>3</sup>	-	-
<i>Escherichia coli</i>	1.1 - 1.5 x 2.0 - 6.0	10 <sup>6</sup>	10 <sup>3</sup>	-	-
<i>Saccharomyces cerevisiae</i>	1.0 (spherical buds)	10 <sup>7</sup>	10 <sup>6</sup>	10 <sup>4</sup>	10 <sup>3</sup>

## Ordering Information

### Cartridges

PGP - [ ] - [ ] [ ] [ ] [ ]

Code   Length (Nominal)	Retention Rating	Code   Flush	Code   Endcap (10'')	Code   Format	Code   O-rings
B* 2.5'' (65 mm)	A	N None (standard)	B* dh DOE	A 10'' Modular	E EPDM
A* 5'' (125 mm)	B	For detailed operational procedures and advice on cleaning and sterilization, please contact the Technical Support Group through your usual Parker dominick hunter contact.	C BF / 226 Bayonet	D Demi	S Silicone
K 5'' (125 mm)	D		D Fin / 222		
1 10'' (250 mm)	E		E Flat Top / 222		
2 20'' (500 mm)			G Recess / 222		
3 30'' (750 mm)			H UF Retrofit		
4 40'' (1000 mm)			J SOE (no o-ring)		
			L* dh DOE		
			N Internal 213		
			R BF / 222 Bayonet		
			Code   Endcap (Demi)		
			SK Retrofit		
			T TRUESEAL		
			Y Demi Stub		
			Z Demi A & B Std		

\* Supplied in packs of 3.

\* EPDM gaskets supplied as standard

### Capsules

PGP - [ ] - [ ] [ ] [ ] [ ]

Code   Length (Nominal)	Retention Rating	Code   Flush	Code   Inlet Connection	Code   Outlet Connection	Code   Vent / Drain Seals
E 4.4'' (113 mm)	A	N None	T 1'' Tri-Clamp	T 1'' Tri-Clamp	S Silicone
B 5.5'' (140 mm)	B		N 1/2'' NPT Male	N 1/2'' NPT Male	
A 7.9'' (200 mm)	D		H 1/2'' Hosebarb	H 1/2'' Hosebarb	
	E		G Stepped Hosebarb	G Stepped Hosebarb	
			M 1/4'' NPT Male	M 1/4'' NPT Male	
			V 3/8'' NPT Female	V 3/8'' NPT Female	

Supplied in packs of 3.

\* Approx. values as in "Holt, J.G., Krieg, N.R., Sneath, P.H.A., Staley, J.T., Williams, S.T., 1994. Bergey's Manual of Determinative Bacteriology, Ninth Edition, Williams & Wilkins".