Glass-Mate™ Cartridges

Absolute and economical filtration with pleated microfiberglass cartridges

Parker's Glass-Mate™ cartridges offer an economical choice for absolute-rated efficiency, high flow rate capability and long service life. A wide variety of construction components, end fittings and seal options make this product line ideal for prefiltration and point-of-use filtration for many industrial applications.

Glass-Mate cartridges are available in 0.45, 1, 2, 3, 5, 10, 20 and 40µm absolute-rated pore sizes.

Benefits

- Absolute-rated media provides reliable removal efficincy
- Thermal bonding eliminates particle bypass
- Laminated media/support layer maximizes flow capacity and media utilization and minimizes media migration
- Variety of construction/seal options for increased compatibility
- End fitting options provide competitive housing retrofit capability
- All FDA listed components biosafe per USP Class V1-121°C Plastic Tests allows filtration of edible and potable liquids
- High surface area yields high flow rate, low differential pressure
- Non-fiber-releasing media with minimal extractables provides high purity filtrate

Applications

- Chemicals
- Coatings
- Water
- R.O. prefiltration

Glass-Mate™ Cartridges

SPECIFICATIONS

Materials of Construction:
Filter Medium: Borosilicate microfiber-glass with acrylic binder
Support/Drainage Layers: Spunbonded polyester; laminated on the down-stream side

Recommended Operating Conditions:
Maximum Temperatures
Glass Filled Polypropylene
200°F @ 35ΔP (93°C/2.4 bar)
Polyester
140°F @ 35ΔP (60°C/2.4 bar)
Stainless Steel
275°F @ 35ΔP (135°C/2.4 bar)
Changeout Differential Pressure
35 psi (2.4 bar)
Maximum Flow Rate
10 gpm per 10 in length
(38 lpm/254 mm)
Design Flow Rate
2.5 gpm per 10 in length
(9.5 lpm/254 mm)

Effective Filtration Area:
5 ft^2/10 in (0.46 m^2/254 mm) minimum

Maximum Differential Pressure:
Glass-Filled Polypropylene
90 psi @ 75°F (6.2 bar/24°C)
Polyester
70 psi @ 75°F (4.8 bar/24°C)

Biological Safety/Product Purity:
Meets USP XXIV Class VI safety requirements for plastics
All components FDA listed per CFR, Title 21
Non-fiber releasing per FDA

Sterilization/Sanitization:
Hot water ("F" construction):
180°F (82°C) for 30 minutes at maximum 15 psid (1 bar).
In-Line Steam/Autoclave
("F" construction with stainless steel sleeve) 60 minutes at 255°F (140°C) at 2 psid (0.14 bar) maximum pressure.

GlassMate Flow Factor (psid/gpm @ 1 cks)

Rating (µm)	Flow Factor
0.45	.108
1	.102
2	.095
3	.090
5	.072
10	.060
20	.042
40	.018

Flow Rate and Pressure Drop Formulas

$$\text{Flow Rate (gpm)} = \frac{\text{Clean } \Delta P \times \text{Length Factor}}{\text{Viscosity} \times \text{Flow Factor}}$$

$$\text{Clean } \Delta P = \frac{\text{Flow Rate} \times \text{Viscosity} \times \text{Flow Factor}}{\text{Length Factor}}$$

Notes:

1. Clean ΔP is PSI differential at start.
2. Viscosity is centistokes. Use Conversion Tables for other units.
3. Flow Factor is ΔP/GPM at 1 cks for 10 in (or single).
4. Length Factors convert flow or ΔP from 10 in (single length) to required cartridge length.

■ **Liquid Particle Retention Ratings (µm)@ Removal Efficiency of:**

Cartridge	ß = 5000 Absolute	ß = 1000 99.9%	ß = 100 99%	ß = 20 95%	ß = 10 90%
PMG004	0.45	0.3	<0.1	<0.1	<0.1
PMG010	1.0	0.6	0.2	<0.1	<0.1
PMG020	2.0	1.2	0.4	0.2	0.1
PMG030	3.0	1.8	0.6	0.3	0.2
PMG050	5	3	1.3	0.5	0.4
PMG100	10	7	3.5	1.6	1.2
PMG200	20	16	8	4	2.5
PMG400	40	32	20	11	8

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Ordering Information

PMG □ — □ □ — □ □

Particle Removal Rating	
CODE	(µm)
002	0.2
004	0.45
010	1.0
020	2.0
050	5.0
100	10
200	20
400	40

Nominal Length	
CODE	LENGTH (mm)
9	9 5/8" (244)
10	9 13/16" (249)
19	19 5/8" (498)
20	19 15/16" (506)
29	29 1/4" (743)
30	30 1/16" (764)
39	39" (991)
40	40" (1016)

Support Construction	
CODE	DESCRIPTION
F	Glass Filled Polypropylene (core only)
P	Polyester

Seal Material	
CODE	DESCRIPTION
P	Polyethylene Foam (DOE Gasket Only)
E	EPR
N	Buna-N
S	Silicone
V	Viton*
X	No Seal Material

End Cap Configuration	
CODE	DESCRIPTION
AR	020 O-ring/Recessed Cap
DO	Double Open End (DOE)
DX	DOE With Core Extender
LL**	120 O-ring/Recessed Cap
LR**	120 O-ring/Recessed Cap
OB	Std. open end / Polypro Spring Closed End
PR**	213 O-ring/Recessed Cap
SC	226 O-ring/Flat Cap
SF	226 O-ring/Fin
TC	222 O-ring/Flat Cap
TF	222 O-ring/Fin
TX	222 O-ring/Flex Fin
XB	Ext. core open end/ Polypro Spring Closed End
SSC	S.S. Inserted 226 O-ring/Closed
SSF	S.S. Inserted 226 O-ring/Fin
STC	S.S. Inserted 222 O-ring/Closed
STF	S.S. Inserted 226 O-ring/Fin

** Available only in 9 5/8" (-9) and 19 5/8" (-19 lengths)

Special Options	
CODE	DESCRIPTION
Z6	Individual Poly Bag only
Z15	Individual Poly Bag 15/ctn. (20", 30", 40") (PXD only)
Z30	Individual Poly bag 30/ctn. (10")

Specifications are subject to change without notification.
*Viton is a registered trademark of E.I. DuPont de Nemours & Co., Inc.

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