



Fulflo® Poly-Mate™ Plus Cartridges

High Surface Area and High Efficiency All-Polypropylene Pleated Cartridges

Fulflo® Poly-Mate™ Plus Cartridges, made of pleated polypropylene micro-fiber, provide high efficiency and high purity filtration. The high efficiency of the Poly-Mate™ Plus line makes it an ideal membrane prefilter or cost-effective alternative to membrane cartridges in a wide range of applications.

Poly-Mate Plus™ Pleated Cartridges are available in the following pore sizes (nominal rating at 90%): 0.25µm, 0.45µm, 0.8µm, 2.0µm, 3.0µm, 5.0µm, 30.0µm, 50.0µm, 100.0µm

Benefits

- All-polypropylene media and construction meet a broad range of performance requirements
- One-piece integral construction is 100% bonded for maximum cartridge integrity
- High surface area design provides superior flow rates and extended service life
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21



- Fixed pore construction provides ultimate particle retention
- Major end seal options are available to fit most standard vessels
- Poly-Mate™ Plus cartridges are non-fiber releasing and ensure consistent quality filtration performance

Applications

- DI Water
- Process Water
- Magnetic Media
- Plating Chemicals
- Membrane Prefilter

Fulflo® Poly-Mate™ Plus Cartridges

Specifications

Materials of Construction:

Filter Media:
Melt blown polypropylene microfiber
Media Support Layers:
Non-woven or mesh polypropylene
Core:
Heavy wall high strength polypropylene
Media Support Cage and Thermally
Welded End Caps: Molded polypropylene
Seal Materials:
Buna-N, EPR, Silicone, Viton*, PFA
Encapsulated Viton*

Dimensions:

Cartridge Outside Diameter: 2-11/16 in
Cartridge Inside Diameter:
DOE: 1-1/16 in, SOE: 1-5/32 in

Maximum Recommended Operating Conditions:

Temperature: 200°F (93°C)
Temperature @ 35 psid: 160°F (71°C)
Change Out ΔP: 35 psi (2.4 bar)
ΔP @ Ambient 70°F (21°C):
70 psi (4.8 bar)
ΔP @ 200°F (93°C): 20 psi (1.4 bar)
Flow Rate: 10 gpm (38 lpm) per 10 in length

Biological Safety/Product Purity:

Meets USP Class VI requirements for plastics
All components FDA listed per CFR, Title 21
Non-fiber releasing per FDA Part 210.3B (5) and (6)
Non-photo sensitive

Filtration Ratings:

90% at 0.25, 0.45, 0.8, 2, 3, 5, 10, 30, 50 and 100 micrometer pore sizes

Poly-Mate™ Plus Length Factors

Length (in)	Factor
4	0.4
10	1.0
20	2.0
30	3.0
40	4.0

Poly-Mate Plus Flow Factors (psid/gpm @ 1 cks)

Rating Flow (μm)	Factor
0.25	0.0900
0.45	0.0530
0.8	0.0290
2	0.0068
3	0.0060
5	0.0048
10	0.0040
30	0.0030
50	0.0025
100	0.0020

Performing Attributes

Flow Rate and Pressure Drop Formulas

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

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

Notes:

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

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

Parker	90%	95%	98%	99.90%	99.98%
PMP002	0.30	0.45	0.90	1.6	2.2
PMP004	0.45	0.75	1.4	2.9	3.1
PMP008	0.8	1.5	3.2	8.0	9.2
PMP020	1.7	3.1	8.6	9.5	15.0
PMP030	3.0	4.6	6.1	11.0	12.0
PMP050	5.0	8.4	10.6	12.0	14.0
PMP100	10.0	12.0	15.0	17.0	21.0
PMP300	15.0	24.0	35.0	44.0	52.0
PMP500	50.0	56.0	62.0	68.0	71.0
PMP1000	100.0	109.0	117.0	126.0	138.0

Ordering Information

