CARTRIDGE FILTERS

Pleated Micro Cartridge Filter

Absolute-rated cartridge in which membrane filter media is pleated on a PP support cage and welded to the end caps by thermal fusion. With six media options and a 0.11–50 µm range, it is used for final filtration and ahead of sterile filtration on food, beverage, pharmaceutical, electronics and chemical lines.



FILTER MEDIA	FILTRATION	MAX. TEMPERATURE	LENGTH
6 media	**0.11–50 µm**	**140 °C**	**5″ – 60″**
PP, PES, PTFE, glass fibre…	Absolute rated	PTFE · others in table	0.6 m² surface per 10″

Technical specifications

Filter media	PP · PES · PTFE (hydrophilic / hydrophobic) · Glass fibre · Nylon · PVDF
Micron range	0.11–50 µm; absolute rated below 1 µm
Construction type	Pleated membrane; reinforced PP cage and rigid inner core, end caps welded by adhesive-free thermal fusion
Length options	5″ · 10″ · 20″ · 30″ · 40″ · 60″ · custom process lengths
End cap type	DOE (with gasket) · SOE · BW7 fitting
Connection / cap	215 · 222 · 222 long · 226 O-ring · Flat · Fin 1 · Fin 2 cap
O-ring material	Silicone · NBR · EPDM · Viton · PTFE
Max. operating temperature	PTFE 140 °C · PVDF 130 °C · Glass fibre 120 °C · Nylon 95 °C · PP / PES 90 °C
Nominal operating temperature	60 °C (glass fibre 80 °C · PVDF 65 °C)
Max. operating pressure	4.2 bar (nylon 4.0 · glass fibre 3.5) · Reverse flow 2.1 bar (nylon 2.0 · glass fibre 1.8)
Sanitisation / sterilisation	PP, PES 90 °C and nylon 95 °C hot water sanitisation · Glass fibre 120 °C, PVDF / PTFE 134 °C saturated steam sterilisation · 30 min
Sterilisation cycles	PP, PES, Nylon, Glass fibre 25 · PVDF 50 · PTFE 100
Backwash	60 °C · 1 bar · 20 min · 50 cycles (except glass fibre; DOE cartridges not recommended)
pH range	PP, PTFE 1–14 · PES 2–13 · PVDF 1–12 · Nylon 3–12 · Glass fibre 1–11
Quality control	Post-production bubble point, visual, dimensional and micron verification

Filtration surface area

LENGTH	SURFACE AREA (M²)	SURFACE AREA (FT²)
5″	0.3	3.2
10″	0.6	6.5
20″	1.2	12.9
30″	1.8	19.4
40″	2.4	25.9
60″	3.6	38.8

End cap and connection options

DOE
Double open end, with gasket. Not recommended on backwashed lines.

SOE · O-ring
Push-in fit with 215, 222, 222 long or 226 O-ring; BW7 fitting.

Cap types
Flat, Fin 1 or Fin 2 cap; chosen to suit the filter housing type.

Chemical compatibility

CHEMICAL GROUP	PP	PES	PTFE	GLASS FIBRE	NYLON	PVDF
Strong acids, dilute (< 30%)	E	E	E	E	P	E
Strong acids, concentrated	P	N/R	E	G	N/R	E
Oxidising acids (nitric, chromic)	G	N/R	E	E	N/R	E
Strong bases (NaOH, KOH)	E	N/R	E	P	E	G
Ketones and esters	G	N/R	E	E	E	P
Aromatic hydrocarbons	F	P	E	E	E	G
Chlorinated solvents	P	N/R	E	E	G	G
Mineral / vegetable oil	F	G	E	E	E	E

E: Excellent · G: Good · F: Fair · P: Poor · N/R: Not recommended

Use and maintenance

- With a high particle load, pre-filter with a depth filter first.
- Limit system flow to 75% of the cartridge capacity.
- Check ΔP gauge calibration at least every 6 months; plan replacement at the critical ΔP.
- The O-ring or gasket must seat fully; incorrect seating invalidates the absolute retention rating.
- Use pure silicone grease on O-rings, not mineral lubricants.

Values in this data sheet are typical and for information only. Product selection should be made with our engineers based on process fluid, temperature, pressure and flow conditions. Proses T.İ.M. reserves the right to change product specifications without prior notice.

PROSES T.İ.M.®
Proses Ticaret İmalat Mühendislik Ltd. Şti.
Musa Gündüz Cad. No:14 Taşköprü, Çiftlikköy / Yalova, Türkiye

+90 226 353 35 70 · Head office
sales@prosestim.com
prosestim.com/en

Product page