

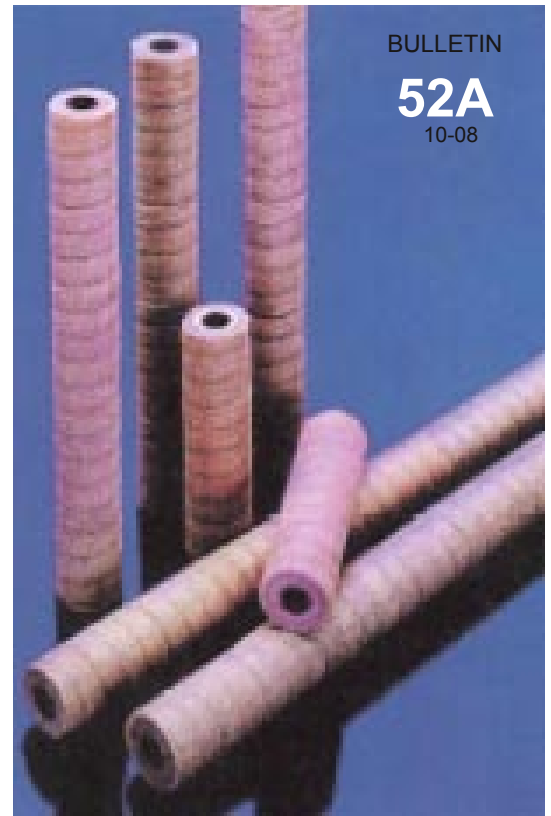


Resin Bonded Filters

Resin Bonded Cartridge

Resin Bonded Filters have a two-stage filtration design to maximize particle removal and service life in viscous fluid filtration applications. An outer, spiral, prefilter wrap increases cartridge strength and eliminates residual debris associated with conventional, machined, resin bonded cartridges.

ResinBond filter cartridges are available in eight differentiated removal ratings from 2µm, 5µm, 10µm, 25µm, 50µm, 75µm, 125µm and 150µm pore sizes to meet a wide range of performance requirements.



BULLETIN

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Applications:

- Paints
- Printing Inks
- Adhesives
- Resins
- Emulsions
- Chemical Coatings
- Organic Solvents
- Petroleum Products
- Process Water
- Oilfield Fluids
- Animal Oils
- Waxes
- Plasticizers

Features and Benefits:

- Outer, spiral wrap collects large particles and agglomerates, while inner layers control particle removal at rated size.
- Outer wrap increases surface area and eliminates loose debris and contamination caused by machined products.
- Extra-long acrylic fibers provide added strength, resist breakage and migration.
- Available with optimal single-open-end seals (222 o-ring with flat cap) in ABS or nylon.
- Phenolic resin impregnation strengthens cartridge for use with fluid viscosities up to 15,000 SSU (3200cKs).
- Withstands pressure surges up to 150 psid across cartridge (depending on fluid temperature).
- One-piece construction eliminates bypass concerns with multilength cartridges and eases change out.
- Silicone-free construction ensures no contamination to adversely affect adhesion properties of coatings.



Resin Bonded Filters

Specifications

Materials of Construction:

- Acrylic, long staple fiber; phenolic bonding resin

Type of Construction:

- Coreless, one-piece, rigid resin bonded fibrous matrix

Particle Removal Ratings:

- 2µm, 5µm, 10µm, 25µm, 50µm, 75µm, 125µm and 150µm

Dimensions, in (mm):

- Outside Diameter: 2-9/16 in (65)
- Inside Diameter: 1-1/8 in (28.6)
- Lengths: Nominal, 10, 20, 30 and 40 in lengths

End Adapters:

- None on double open end style
- ABS (Acrylonitrile Butadiene Styrene) for most applications.
- Nylon (NTC) for aromatic solvents.

Maximum Recommended Operating Conditions:

- Flow Rate:
 - 10 gpm per 10 in length (38 lpm per 254 mm length)
- Temperature: 250°F (121°C)
- Change Out ΔP : 50 psid (3.5 bar)
- Cartridge Pressure Resistance:
 - 150 psid (10 bar) @ 70°F (21 °C)
 - 125 psid (8.6 bar) @ 100°F (38°C)
 - 90 psid (6.2 bar) @ 150°F (65°C)
 - 65 psid (4.5 bar) @ 180°F (82°C)
 - 25 psid (1.7 bar) @ 250°F (121)

Environmental Chemical Compatibility:

- Lengths:
- Classified as a nonhazardous material
- Incinerable (8000 BTU/lb)
- Crushable and shreddable
- Certified silicone-free
- Suitable for weak acids and bases (PH 5-9)
- Unsuitable for oxidizing agents
- Not recommended for FDA applications

Notes:

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

Resin Bonded Length Factors

Length (in)	Length Factor
9	1.0
10	1.0
19	2.0
20	2.0
29	3.0
30	3.0
39	4.0
40	4.0

Resin Bonded Flow Factors (psid/gpm @ 1cks)

Rating (µm)	Flow Factor
2	0.08
5	0.04
10	0.02
25	0.012
50	0.01
75	0.006
125	0.0013
150	0.0010

Flow Rat. and Pressure Drop Formulae:

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

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

