A Patented Breakthrough in Resin Bonded Cartridge Design

Parker ProBond™ cartridges have a unique, proprietary 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.

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

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 common with competitive “short fiber” cartridges.
- Phenolic resin impregnation strengthens cartridge for use with fluid viscosities up to 15,000 SSU (3200 cks).
- 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.
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 and 125µm

Dimensions, in (mm):
- Outside Diameter: 2.56 (65)
- Inside Diameter: 1.12 (28.6)
- Lengths: 9.75 (247), 10 (254), 19.5 (495), 20 (508), 29.25 (743), 30 (762), 39 (991), 40 (1016)

Recommended Operating Conditions:
- Maximum Flow Rate: 5 gpm per 10 in increment (18.9 lpm per 254 mm increment)
- Maximum 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°C)

Environmental/Chemical Compatibility:
- 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

Ordering Information

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End Cap Options
- Omit = Standard (coreless)
- XA = Poly Extender
- TC = Single Open End
- (222 O-ring/Flat Cap)

Seal Options
- N = Buna-N O-Ring
- E = EPR O-Ring
- S = Silicone O-Ring
- V = Viton** O-Ring

Flow Rate and Pressure Drop Formulas:

Flow Rate (gpm) = Clean ΔP x Length Factor

Viscosity = Clean ΔP x Flow Factor

Clean ΔP = Flow Rate x Viscosity x Flow Factor

Length Factor

Notes:
1. Clean ΔP is PSI differential at start.
2. Viscosity is centistokes.
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.

ProBond Length Factors

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ProBond Flow Factors (psid/gpm @ 1 cks)

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Notes:
- Patent pending
- ** A trademark of E. I. du Pont de Nemours & Co.