# Fulflo<sup>®</sup> ProBond<sup>™</sup> Filter Cartridges

Patented break-through in resin-bonded cartridge design

Parker ProBond<sup>™</sup> cartridges have a unique, proprietary two-stage filtration design to maximize particle retention and service life in viscous fluid filtration applications. An outer, spiral, prefilter wrap, made from a fiber blend of polyester and acrylic, increases cartridge strength and eliminates residual debris associated with conventional or machined and grooved, resin bonded cartridges.

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

# **Contact Information**

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#### www.parker.com/processfiltration



# **Benefits**

- Outer, spiral wrap collects large particles and agglomerates, while inner layers control particle removal at rated size
- Outer wrap increases surface area, & 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
- Available with optimal singleopen-end seals (222 o-ring with flat cap) in ABS or nylon
- Phenolic resin impregnation strengthens cartridge for use with high viscosity fluid
- Withstands pressure surges up to 150psid across cartridge (depending on fluid temperature)

- One-piece construction eliminates bypass concerns with multi-length cartridges and eases change out
- Silicone-free construction ensures no contamination to adversely affect adhesion properties of coatings

# **Applications**

- Paints
- Printing Inks
- Adhesives
- Resins
- Emulsions
- Chemical Coatings
- Organic Solvents
- Plasticizers
- Waxes
- Oil & Gas Fluids
- Petroleum Products



## ENGINEERING YOUR SUCCESS.

# **Fulflo® ProBond<sup>™</sup> Filter Cartridges**

### SPECIFICATIONS

#### Materials of Construction

1st stage Pre-filter wrap:

• Polyester/Acrylic long staple fiber blend

2nd stage Final Filter wrap:

- Acrylic long staple fiber
- Fibers impregnated with Phenolic Resin

#### Type of Construction

Coreless, one-piece, rigid resin bonded fibrous matrix

#### Maximum Recommended Operating Conditions

- Flow Rate: 5gpm per 10 in length (18.9 lpm per 254 mm length)
- Temperature: 250°F (121°C)
- Maximum Recommended Change Out ΔP: 50psid (3.5bar)
- Recommended Maximum Differential Pressure: *Cartridge Pressure Resistance* 
  - 150psid (10bar) @ 70°F (21°C)
  - 125psid (8.6bar) @ 100°F (38°C)
  - 90psid (6.2bar) @ 150°F (65°C)
  - 65psid (4.5bar) @ 180°F (82°C)
  - 25psid (1.7bar) @ 250°F (121°C)

#### **Particle Removal Ratings**

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

#### Dimensions, in. (mm)

Outside Diameter:  $2-\frac{9}{16}$  in (65) Inside Diameter:  $1-\frac{1}{8}$  in (28.6) Lengths: Nominal, 10, 20, 30 and 40 in.

#### Environmental/Chemical Compatibility

Classified as a nonhazardous material

- Incinerable (8000 BTU/lb)
- Crushable and shredable
- Certified silicone-free
- Suitable for weak acids and bases (pH 5-9)
- Unsuitable for oxidizing agents
- Not recommended for FDA applications

#### **End Adapters**

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

ProBond	Flow
Facto	rs

ProBond Length Factors

Rating (µm)	Flow Factors	Length (in)	Length Factors
2	0.08	9	1.0
5	0.04	10	1.0
10	0.02	19	2.0
25	0.012	20	2.0
50	0.01	29	3.0
75	0.006	30	3.0
125	0.0013	39	4.0
150	0.0010	40	4.0
200	0.0005		
250	0.0001		

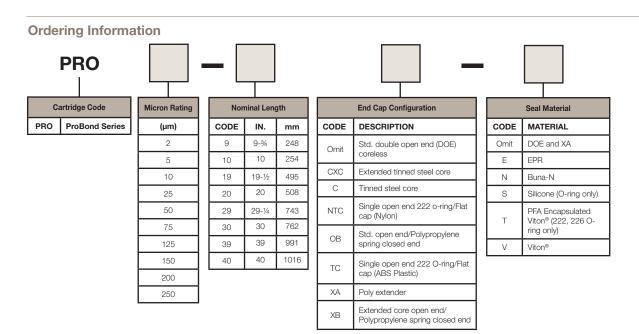
#### Flow Rate and Pressure Drop Formulas

Flow Rate (gpm) = <u>Clean ΔP x Length Factor</u> Viscosity x Flow Factor

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

1. Clean  $\Delta P$  ispsi differential at start.

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



Specifications are subject to change without notification. For User Responsibility Statement, see www.parker.com/safety



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