



## Fulflo® EcoBond™ Filter Cartridges

■ Polypropylene

*Bonded Depth Series*

### High Purity Filtration With Low Cost Melt Blown Depth Cartridges

Parker's Fulflo® EcoBond™ Cartridges are the most economical high purity filter cartridges available. Featuring a graded density matrix of uniform polypropylene fibers, the EcoBond provides consistent filtration for a wide variety of fluids. No fiber finish or surfactants are present to generate extractables leading to foaming or other undesirable effects on the filtrate.

Fulflo EcoBond Cartridges are available in nominal ratings of 1µm, 5µm, 10µm, 25 µm and 50µm.

#### *Applications*

- Photographic Chemicals
- DI Water
- Plating Solutions
- R.O. Prefiltration
- Organic Solvents
- Oilfield Fluids
- Food & Beverages
- Membrane Prefiltration
- Chemical Processing Fluids
- Potable Water
- Bleach



#### *Features and Benefits*

- Fixed pore structure provides efficiency integrity and optimum particle retention.
- Thermally bonded melt blown fiber matrix provides dimensionally stable construction.
- Continuous fiber matrix prevents media migration and ensures consistent quality filtration performance.
- Finish-free construction provides optimum fluid purity and eliminates foaming condition.
- Superior inter-layer bonding eliminates contaminant unloading and channeling.
- FDA grade polypropylene (DOE only) certified to ANSI/NSF61 standard for contact with drinking water components.
- Narrow range fiber size optimizes consistency of filtration performance.
- Polypropylene construction provides broad chemical compatibility for a variety of applications.
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21.
- Single component construction simplifies compatibility options and provides easy disposal.

Process Filtration Division



## Specifications

### Nominal Filtration Ratings (90%) :

- 1µm, 5µm, 10µm, 25µm, and 50µm.

### Materials of Construction:

- Filter Medium: 100% melt blown polypropylene
- End Caps/Adapters (optional): polyolefin copolymer
- Seal Options: Various; refer to Ordering Information

### Maximum Recommended Operating Conditions:

- Temperature:
  - @ 40 psid (2.7 bar): 80°F ( 27°C)
  - @ 20 psid (1.4 bar): 140°F (60°C)
- Flow Rate:
  - 10 gpm (38 lpm) per 10 in length
- Change Out ΔP: 30 psi (2.1 bar)
- Operating Differential Pressure @ Ambient Temperature:
  - 40 psi (2.7 bar)

### Dimensions:

- 1-1/16 in ID x 2-7/16 in OD (max)
- 10, 20, 30, 40 and 50 in continuous nominal lengths

### EBC Flow Factors

Rating (µm)	Aqueous Service PSI/ GPM per 10 in Cartridge
EBC1	0.10
EBC5	0.08
EBC10	0.07
EBC25	0.06
EBC50	0.05

### EBC Length Factors

Length (in)	Length Factor
9.75	1.0
10.00	1.0
19.50	2.0
20.00	2.0
29.25	3.0
30.00	3.0
39.00	4.0
40.00	4.0
50.00	5.0

### Flow Rate and Pressure Drop Formulae:

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

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

### 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.

## Ordering Information

EBC	10	M	10	TC	N
Cartridge Code	Micrometer Rating (µm)	Filter Medium	Nominal Length	End Cap Configuration	Seal Material
EBC = EcoBond Cartridge	1 5 10 25 50	M = FDA Grade Polypropylene	Code in mm 9-4 = 9-3/4 248 10 = 10 254 19-4 = 19-1/2 495 20 = 20 508 29-4 = 29-1/4 743 30 = 30 762 39-4 = 39 991 40 = 40 1016 50 = 50 1270	None DOE w/o gaskets AR = 020 O-Ring (Recessed) DO = DOE with gaskets LL = 120 O-Ring (Both Ends)** LR = 120 O-Ring/Recessed** OB = Std. Open End/Polypro Spring Closed End PR = 213 O-Ring/Recessed** SC = 226 O-Ring/FLat Cap SF = 226 O-Ring/Fin TC = 222 O-Ring/Flat Cap TF = 222 O-Ring/Fin TX = 222 O-Ring/Flex Fin XA = DOE w/Core Extender XB = Ext. Core Open End/Polypro Spring Closed End	A = Poly Foam Gaskets w/Collars (DO only) E = EPR N = Buna N S = Silicone T = PFA Encapsulated Viton* (222, 226 only) V = Viton* W = Poly Foam Gaskets without Collars (DO only)

\*\* Available only in 9-3/4" (9-4) and 19-1/2" (19-4) lengths.

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