

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

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- 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.



■ Polypropylene

Bonded Depth Series



- 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







WARNINGI FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Parker Hannlife Corporation, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application and review the information concerning the product or system in the current product catalog. Due to the variety of operating conditions of these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection for the products and systems and assuring that all performance, safety and warning requirements of the application are met.

Bonded Depth Series

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 ∆P: 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

Ordering Information

EBC Cartridge Code	10 Micrometer Rating (µm)	M Filter Medium	10 Nominal Length
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

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

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EBC Flow Factors

Rating <i>(μm)</i>	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	1
20.00	2.0	
29.25	3.0	
30.00	3.0	1
39.00	4.0	
40.00	4.0	
50.00	5.0	

Flow Rate and Pressure Drop Formulae:

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

Clean ΔP = Flow Rate x Viscosity x Flow Factor

Length Factor

Notes:

- 1. Clean ΔP is \underline{PSI} differential at start.
- Viscosity is centistokes.

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

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End Cap Configuration	Seal Material
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	A = Poly Foam Gaskets w/Collars (DO only) E = EPR N = Buna N S = Silicone T = PFA Encapsulated
Spring Closed End PR = 213 O-Ring/Recessed** SC = 226 O-Ring/FLat Cap SF = 226 O-Ring/Fin	Viton* (222, 226 only) V = Viton* W = Poly Foam Gaskets without Collars (DO only)
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	

Process Filtration Division

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