



Fulflo® DuraBond™ Filter Cartridges

■ Polyolefin

Bonded Depth Series

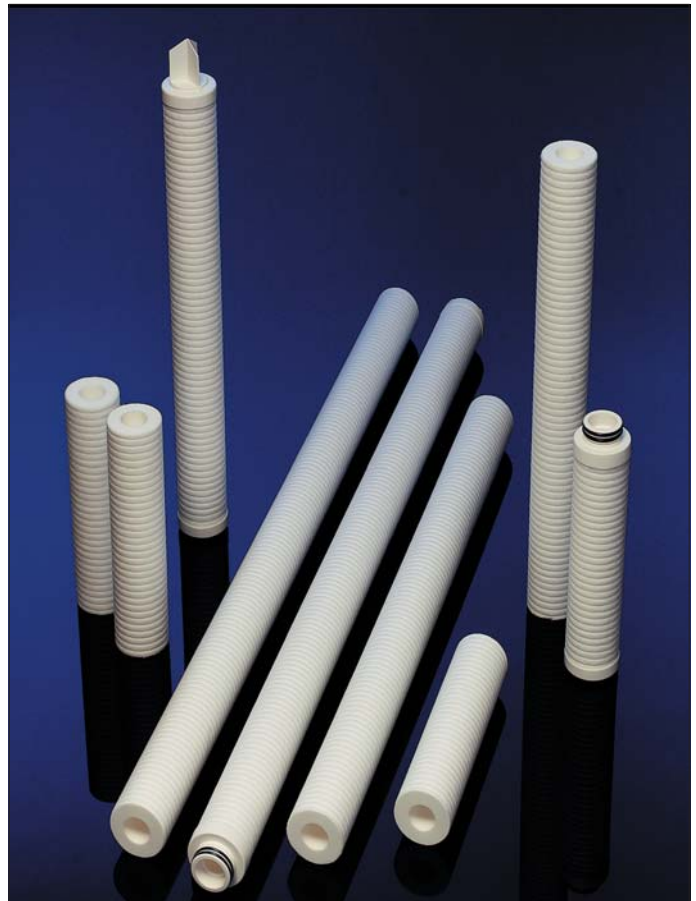
Economical Filtration With High Strength Thermally Bonded Depth Cartridges

Parker's Fulflo® DuraBond™ Cartridges are the most economical high strength filter cartridges available. Featuring an integral rigid thermally bonded construction, the DuraBond provides consistent filtration for a wide variety of fluids. Its fixed pore structure acts as a sieve-like particle "classification" filter for pigmented coatings allowing pigments to pass while stopping large agglomerates

Fulflo DuraBond Cartridges are available in nominal ratings of 1µm, 3µm, 5µm, 10µm, 25µm, 50µm, 75µm and 100µm.

Applications

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



Features and Benefits

- Fixed pore structure provides efficiency, integrity and optimum particle retention.
- Thermally bonded bicomponent fiber matrix provides rigid dimensionally stable construction without fiber migration.
- Rigid construction eliminates contaminant unloading and channeling.
- Corrugated porous surface maximizes dirt holding capacity
- Silicone free construction will not change coating properties.
- FDA grade polypropylene (DOE only) certified to ANSI/NSF61 standard for contact with drinking water components.
- Polyolefin 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.
- DuraBond cartridges can be easily disposed by shredding, incinerating or crushing.
- DuraBond construction provides particle "classification" effect with pigmented coatings.
- Double-open-end style is self sealing without separate gasket material.

Process Filtration Division



Bonded Depth Series

Specifications

Nominal Filtration Ratings: (90% efficiency)

- 1, 3, 5, 10, 25, 50, 75, 100 μm .

Materials of Construction

- Filter Medium: Thermal Bonded bicomponent matrix of polypropylene/polyethylene
- End Caps/Adapters (optional): polyolefin copolymer
- Seal Options: Various; refer to Ordering Information

Dimensions;

- 1-1/16 in (27mm) ID x 2-7/16 (62mm) in OD
- 10, 20, 30, 40, and 50 in continuous nominal lengths.

Liquid Particle Retention Ratings (μm) @ Removal Efficiency of:

Cartridge	$\beta = 10$ 90%	$\beta = 20$ 95%	$\beta = 100$ 99%	$\beta = 1000$ 99.9%
DBC1	1	2	4	5
DBC3	3	4	8	10
DBC5	5	10	16	20
DBC10	10	15	25	30
DBC25	25	30	50	55
DBC50	50	70	80	90
DBC75	75	100	>100	>100
DBC100	100	>100	>100	>100

Beta Ratio (β) = $\frac{\text{Upstream Particle Count @ Specified Particle Size and Larger}}{\text{Downstream Particle Count @ Specified Particle Size and Larger}}$

Percent Removal Efficiency = $\left(\frac{\beta-1}{\beta}\right) \times 100$

Performance determined per ASTM F-795-88. Single-Pass Test using AC test dust in water at a flow rate of 2.5 gpm per 10 in (9.5 lpm per 254 mm).

Ordering Information

DBC	10	M	10	
Cartridge Code	Micrometer Rating (μm)	Filter Medium	Nominal Length	
DBC = DuraBond Cartridge	1	M = FDA Grade Polypropylene	Code in mm	
	3		9-4 = 9-3/4	248
	5		10 = 10	254
	10		19-4 = 19-1/2	495
	25		20 = 20	508
	50		29-4 = 29-1/4	743
	75		30 = 30	762
	100		39-4 = 39	991
			40 = 40	1016
			50 = 50	1270

TC		N
End Cap Configuration		Seal Material
None	DOE w/o gaskets	None = No Seal Material (Std. DOE)
AR	= 020 O-Ring (Recessed)	A = Poly Foam Gaskets w/Collars (DO only)
DO	= DOE with gaskets	E = EPR
LL	= 120 O-Ring (Both Ends)**	N = Buna N
LR	= 120 O-Ring/Recessed**	S = Silicone
OB	= Std. Open End/Polypro Spring Closed End	T = PFA Encapsulated Viton* (222.2226 O-Ring only)
PR	= 213 O-Ring/Recessed**	V = Viton*
SC	= 226 O-Ring/Flat Cap	W = Spun Weld PolyFoam Gaskets (DO only)
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	

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

* A trademark of E. I. duPont de Nemours & Co.

DBC Flow Factors

Rating (μm)	Aqueous Service PSID/ GPM per 10 in Cartridge
DBC1	0.109
DBC3	0.087
DBC5	0.073
DBC10	0.058
DBC25	0.031
DBC50	0.022
DBC75	0.015
DBC100	0.012

DBC 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:

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

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

Notes:

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

Process Filtration Division

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