Clariflow® B Mini-Capsules

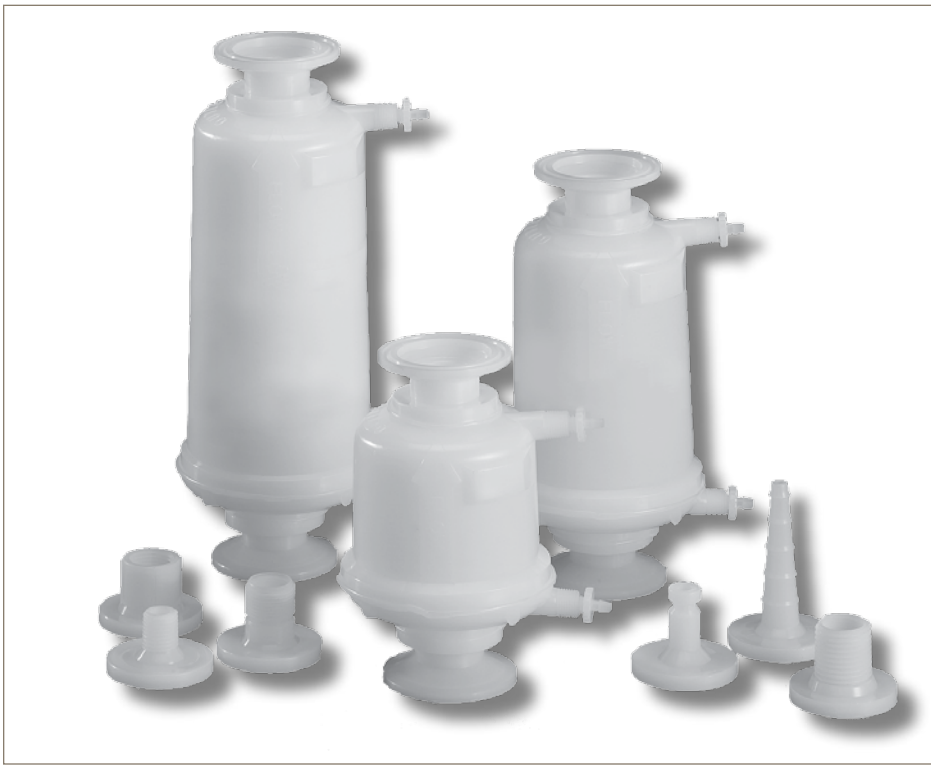
Encapsulated PES Membrane for Small-Volume Applications

Clariflow-B Mini-Capsules deliver high-purity fluids for small volume biopharmaceutical applications. The mirrored anisotropic polyethersulfone (PES) membrane is biologically inert, low protein-binding, and inherently hydrophilic.

Clariflow-B Mini-Capsules are available in a variety of sizes and end-fitting combinations.

The encapsulated design maximizes efficiency by providing faster, easier change-out without laborious cleaning procedures.

The Clariflow-B Mini-Capsules provide typical microbial retention of up to $10^7/cm^2$ organisms of *Brevundimonas Diminuta* per HIMA guidelines (ASTM F-838-83).



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Benefits

- High flow rate reduces processing time
- Biologically inert, low protein-binding membrane maximizes product yields
- Inherently hydrophilic for cleaner filtrates

Applications

- Sera & Vaccines
- Bacterial Growth Media
- Protein-Containing Preparations
- Parenteral Solutions
- Buffers & Reagents

Clariflow® B Mini-Capsules

Encapsulated PES Membrane Filters for Small-Volume Applications

Materials of Construction:
Membrane: Polyethersulfone
Support Layers: Polypropylene
Structure: Polypropylene Capsule
Housing: Polypropylene

All components meet USP-XXIV Class VI-121°C criteria and are thermally bonded to ensure integrity and reduce extractables.

Maximum Operating Differential Pressure:
Forward:
70 psid (4.8 bar) @ 75°F (24°C)
35 psid (2.4 bar) @ 140°F (60°C)
20 psid (1.4 bar) @ 167°F (75°C)

Reverse:
30 psid (2.1 bar) @ 75°F (24°C)

Autoclavable and Sanitizable:
Capsules may be autoclaved up to 25 times at 275°F (135°C), or chemically sanitized in place using common sanitizing agents.

Bacterial Retention:
Documented removal (LRV ≥ 6 per cm^2) for both 0.1 and 0.2 µm ratings using *Brevundimonas diminuta* and the current HIMA challenge methodology (ASTM method F838-83).

Standard Packaging Options:
- Non-Sterile
- Pre-Sterilized

Effective Surface Area

Size	Effective Surface Area	
		(cm)
Half	0.9	(836)
Standard	1.8	(1672)
Double	2.5	(2323)

Typical Liquid Flow Rates

Filter Rating	Typical Flow Rate*	Capsule Size		
		Half	Standard	Double
0.1µm	gpm/psid (lpm/100 mbar)	0.2 (1.1)	0.5 (2.7)	0.7 (3.8)
0.2µm	gpm/psid (lpm/100 mbar)	0.5 (2.7)	1.0 (5.5)	1.4 (7.7)
0.45µm	gpm/psid (lpm/100 mbar)	0.65 (3.6)	1.3 (7.1)	2.0 (11.0)
0.65µm	gpm/psid (lpm/100 mbar)	1.2 (6.6)	2.5 (13.7)	3.4 (18.7)
0.8µm	gpm/psid (lpm/100 mbar)	1.5 (8.2)	2.9 (15.9)	4.2 (23.0)

Test Specifications - 0.1 and 0.2 microns

Filter Rating	Size	Minimum Bubble Point*		Maximum Diffusional Flow*		
µm		psig	bar	cc/min	Test Pressure	
					psig	bar
0.1	Half	7.0	4.8	6	55	3.8
0.1	Standard	7.0	4.8	13	55	3.8
0.1	Double	7.0	4.8	17	55	3.8
0.2	Half	4.5	3.1	4	32	2.2
0.2	Standard	4.5	3.1	7	32	2.2
0.2	Double	4.5	3.1	10	32	2.2

Test Specifications - 0.45, 0.65, 0.8 microns

Filter Rating	Size	Minimum Bubble Point*		Maximum Diffusional Flow*		
Micron		psig	bar	cc/min	Test Pressure	
					psig	bar
0.45	All Sizes	30	2.1	8	24	1.6
0.65	All Sizes	17	1.2	8	13	0.9
0.8	All Sizes	15	1.0	8	11	0.8

Ordering Information

Each Mini-Capsule is identified with a product number, pore size, and lot number for traceability.

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Size	
CODE	DESCRIPTION
H	Half
S	Standard
D	Double

Inlet/Outlet	
CODE	FITTING
B	1/4" Hose Barb
H	1/2" Hose Barb
S	1 1/2" Sanitary Flange
D	Quick Disconnect
P	1/4" NPT (Male)
J	1/2" NPT (Male)
K	3/8" NPT (Female)
G	Swagelok®

Filter Rating	
CODE	MICRON
001	0.1
002	0.2
004	0.45
006	0.65
008	0.8

Vent O-Ring	
CODE	MATERIAL
0	Buna N
1	EPDM
2	Silicone
4	Viton®
N	None

Standard Packaging Options	
(blank)	Non-Sterile
S	Pre-Sterilized

TECHNICAL SUPPORT and PRODUCT ORDERING

Parke Process Advanced Filtration provides unsurpassed product consistency and cost-efficiency for our customers. Our experienced professionals can help you select the right solution for your application. For more information or to place an order, contact your local distributor. Information on product specifications, applications and chemical compatibility can be found on our web site at www.parker.com or through your nearest Parker Process Advanced Filtration office. Parker Process Advanced Filtration designs and manufactures an extensive line of innovative solutions for specific applications in Biopharmaceutical, Microelectronics, Food & Beverage, Industrial and Chemical industries.

SPEC-2513 CAPS 09/08

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