



CRYPTOCLEAR PES Filter Cartridges

- liquid filters
- polyethersulphone

CRYPTOCLEAR PES utilizes the unique properties of a microbially retentive polyethersulphone membrane that provides absolute retention of *Cryptosporidium parvum* oocysts to meet the specific needs of the food, beverage and potable water industries.

CRYPTOCLEAR PES membrane has an asymmetrical pore structure with a high voids volume which offers unrivalled retention capacity resulting in higher throughputs and higher flow rates than symmetrical membranes.

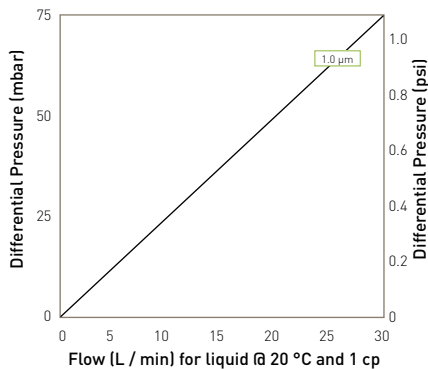
The microporous membrane is inherently hydrophilic and can be integrity tested repeatedly, providing a valuable quality assurance tool that fits well into a HACCP framework.

Features and Benefits

- Specifically developed for the removal of *Cryptosporidium parvum* oocysts
- 1.0 micron absolute rated polyethersulphone membrane
- High throughputs and flow rates
- Can be repeatedly steam sterilized or chemically sanitized
- Repeatedly integrity testable
- 100% retention of oocysts



Performance Characteristics



For K size for a given flow rate multiply 10" size differential pressure by 2

10" Size (250 mm) Cartridge

Specifications

Materials of Construction

- Filtration Membrane: Polyethersulphone
- Prefilter Layer: Polyester
- Upstream Support: Polyester
- Downstream Support: Polyester
- Inner Support Core: Polypropylene
- Outer Protection Cage: Polypropylene
- End Caps: Nylon
- End Cap Insert (if applicable): 316L Stainless Steel*
- *Not available in B & L endcap variants
- Standard o-rings/gaskets: Silicone / EPDM
- Capsule Body: Nylon
- Capsule Vent Seals: Silicone

Food and Biological Safety

Materials conform to the relevant requirements of 21CFR Part 177, EC1935 / 2004 and current USP Plastics Class VI - 121 °C and ISO10993 equivalents. CRYPTOCLEAR PES is listed as a WRAS Approved Product.
WRAS - Water Regulations Advisory Scheme BS6920 Test of Effect on Water Quality

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature		Max. Forward dP	
°C	°F	(bar)	(psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Capsules may be operated up to a temperature of 40 °C (104 °F) at line pressures up to 5.0 barg (72.51 psig) for liquids.

Effective Filtration Area (EFA)

10" (250 mm) Up to 0.8 m² (8.61 ft²)

Cleaning and Sterilization

CRYPTOCLEAR PES cartridges can be repeatedly steam sterilized in situ or autoclaved at up to 130 °C (266 °F). They can be sanitized with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals. Capsules can be repeatedly autoclaved up to 130 °C (266 °F).

Retention Characteristics

The removal efficiencies of CRYPTOCLEAR PES cartridges have been determined from tests conducted by Thames Water Utilities Limited on live *Cryptosporidium* oocysts.

Product	Micron	Retention
CRYPTOCLEAR PES	1.0	100%

Integrity Test Data

All filters are flushed with purified water prior to despatch. They are integrity testable to the following limits:

Micron Rating	1.0
Diffusional Flow (barg)	0.6
Test Pressure (psig)	9.0
Max. Diffusional Flow (10 ⁻¹) (ml / min)	21.0
	(K) 9.8
	(A) 8.0
	(B) 3.9
	(E) 1.8

Ordering Information

Cartridges



Code	Length (Nominal)	Code	Micron	Code	Endcap (10")
B*	2.5" (65 mm)	100	1.0 µm	B*	dh DOE
A*	5" (125 mm)			C	BF / 226 Bayonet
K	5" (125 mm)			D	Fin / 222
1	10" (250 mm)			E	Flat Top / 222
2	20" (500 mm)			G	Recess / 222
3	30" (750 mm)			N	Internal 213
4	40" (1000 mm)			R	BF / 222 Bayonet

For detailed operational procedures and advice on cleaning and sterilization, please contact the Technical Support Group through your usual Parker domnick hunter contact.

Code	Endcap (Demi)
T	TRUESEAL
Y	Demi Stub
Z	Demi A & B Std

* EPDM gaskets supplied as standard

Capsules



Code	Length (Nominal)	Code	Micron	Code	Inlet Connection	Code	Outlet Connection	Code	Variant	Code	Grade	Code	Pack N°
E	4.4" (113 mm)	100	1.0 µm	T	1" Tri-Clamp	T	1" Tri-Clamp	B	Beverage	N	Non-Sterile	3	Pack of 3
B	5.5" (140 mm)			N	1/2" NPT Male	N	1/2" NPT Male						
A	7.9" (200 mm)			H	1/2" Hosebarb	H	1/2" Hosebarb						
				G	Stepped Hosebarb	G	Stepped Hosebarb						
				M	1/4" NPT Male	M	1/4" NPT Male						

Parker domnick hunter has a continuous policy of product development and although the Company reserves the right to change specifications, it attempts to keep customers informed of any alterations. This publication is for general information only and customers are requested to contact our Process Filtration Sales Department for detailed information and advice on a products suitability for specific applications. All products are sold subject to the company's Standard conditions of sale.

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Map and Directions to Prosep Filters Limited



Leave M62 at Junction 24.

At roundabout adjacent to Cedar Court Hotel take 2nd exit onto dual carriageway (A629), signposted Halifax.

Take 1st exit slip road.

At roundabout at end of sliproad, take 3rd exit off.

This is the entrance to Lowfields Business Park.

Proceed straight over 1st roundabout.

At next roundabout take 2nd exit onto River Bank Way - Prosep Filters can be found on the left after the S-bend.

[Link to Google Maps](#)