

BIOKLARIS WATER

PES membrane cartridge



- New PES membrane with enhanced characteristics
- High effective filtration area with more retention capacity
- Easy integrity testable in situ
- Steamable in situ
- Sanitizable and cleanable
- Thermowelded construction
- EC- listed materials for Food contact
- FDA-listed materials per CFR21
- Increased service life to reduce filtration cost



BIOKLARIS WATER filter element is more stout and has been created to provide more mechanical strength in critical conditions. It is specifically designed for the treatment of water and aqueous products for human consumption. The asymmetric polyethersulfone membrane, with the high filtering surface and the specific pleating configuration, is able to guarantee improved performance in terms of service life and effluent quality.

BIOKLARIS WATER cartridges can be repeatedly steam sterilized or sanitized with chemicals and can be regenerated with hot solution of sodium hydroxide.

The removal of undesired microorganisms is guaranteed by the bacterial challenge test according to ASTM F 838. The filter element is testable in situ either before and after the filtration process.

The construction is carried out in a controlled environment, with constant monitoring of all production parameters. The cartridges are 100% integrity tested and verified in production.

MATERIALS OF CONSTRUCTION

| | |
|----------------------------|-------------------------------|
| Membrane | Polietersulfone (hydrophilic) |
| Upstream supports | polypropylene |
| Downstream supports | polypropylene |
| Internal Core | polypropylene |
| External Cage | polypropylene |
| End caps / Adapters | polypropylene |

FOOD-SAFETY

BIOKLARIS WATER filter element materials meet (EU) regulation 10/2011 and its amendments, regulations (EC) 1935/2004 AND 1895/2005.

Construction materials are in compliance with FDA requirements according to CFR 21; par. 177-199.

QUALITY STANDARDS

Produced under a ISO 9001 certified Quality System to guarantee traceability of manufacturing records and integrity testing results.



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We are here to help.

Contact us!

RECOMMENDED OPERATING CONDITIONS

| | |
|--|---|
| - max. continuous temperature | 75 °C |
| - max. cumulative number of steam sterilization cycles | ≥100 hours at 121 °C, ≥80 hours at 125 °C* with max ΔP 0,3 bar (cycles of 60 minutes) |
| - sanitization with hot water | 90 °C max |
| - sanitization with chemicals | can be sanitized by usual chemical agents |
| - regeneability | NaOH solution up to 3% at 85 °C |
| - max. differential pressure | 5,0 bar at 25 °C and 1,0 bar at 90 °C |
| - recommended change out differential pressure | 2,0 bar at 25 °C |
| * maximum in-line sterilization temperature | |

INTEGRITY TEST DATA

| CODE | ABSOLUTE FILTRATION RATING IN LIQUIDS | PRESSURE HOLD VALUE * | TEST PRESSURE | MAX. DIFFUSION FLOW VALUE IN WATER FOR 10" CARTRIDGE (ml/min) |
|-----------|---------------------------------------|-----------------------|---------------|---|
| | | 8 cartridges of 30" | | |
| BC | 0,2 µm | ≤ 0,11 bar | 1,8 bar | ≤20 |
| BD | 0,45 µm | ≤ 0,12 bar | 1,1 bar | ≤20 |

* the values are related to a test time of 5 minutes and are indicative: they depend on the housing volume upstream the filter element.

BACTERIAL RETENTION

TYPICAL FLOW RATE l/h FOR 10" CARTRIDGE

| CODE | ΔP= 0,1 bar |
|-----------|-------------|
| BC | 1200 |
| BD | 1500 |

| CODE | FILTRATION RATING micron | * BACTERIAL RETENTION > 10 ⁷ per cm ² |
|-----------|--------------------------|--|
| BC | 0,2 | Pseudomonas aeruginosa / Escherichia coli / Enterobacteriaceae / Serratia marcescens |
| BD | 0,45 | Serratia marcescens / Clostridium perfringens/ Oocystes / Criptosporidium / Giardia |

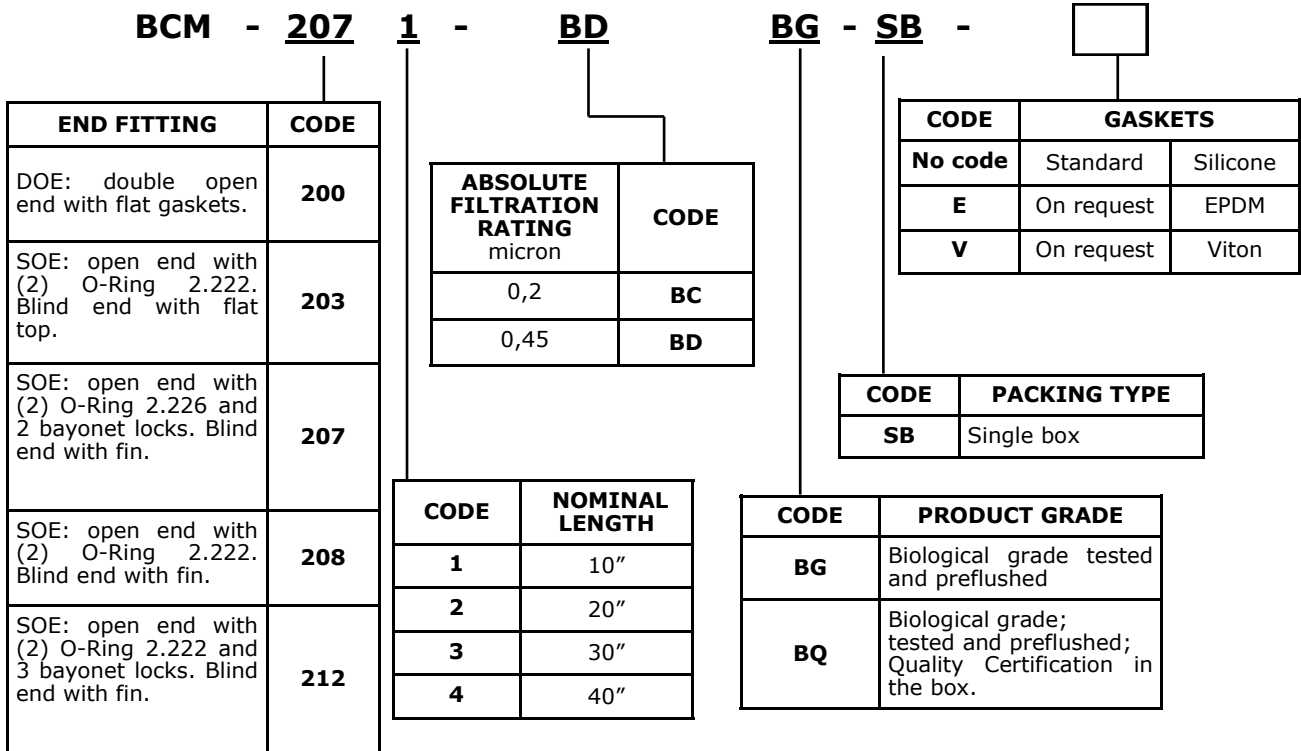
* As per ASTM F838

Filtration rating 0.2 micron is able to retain 10⁷ UFC of Brevundimonas diminuta for 10" cartridge.

Filtration rating 0.45 micron is able to retain 10⁷ UFC of Serratia marcescens for 10" cartridge.

Filtration area up to 7500 cm² for 10" cartridge

BIOKLARIS WATER PART NUMBER ORDERING INFORMATION



TRACEABILITY

In order to ensure the complete traceability, each filtering element is identified with Part Number, lot number, serial number and filtration rating.

QUALITY

Each filtering element is tested during the production and before the final packaging.