

BEVPOR MC

Caustic stable beverage filter cartridges

The BEVPOR MC range of membrane filters provide full retention to industry regulated, water contaminating organisms to ensure the micro-biological safety of bottled water.

Utilizing a high-performance, highly asymmetric polyethersulfone membrane the BEVPOR MC filters provide complete sterility in accordance to ASTM F838-20 requirements.

BEVPOR MC cartridges have been specifically designed to be compatible with caustic (NaOH) concentrations that exceed industry standards whilst providing a cost-effective solution to the microbial sterilization and stabilization of bottled water.

Features

- Fully validated bacterial retention to industry regulated organisms
- Compatible with caustic (NaOH) concentrations that exceed industry standards
- Designed for extended service life within harsh and aggressive CIP processes
- Easily integrity testable

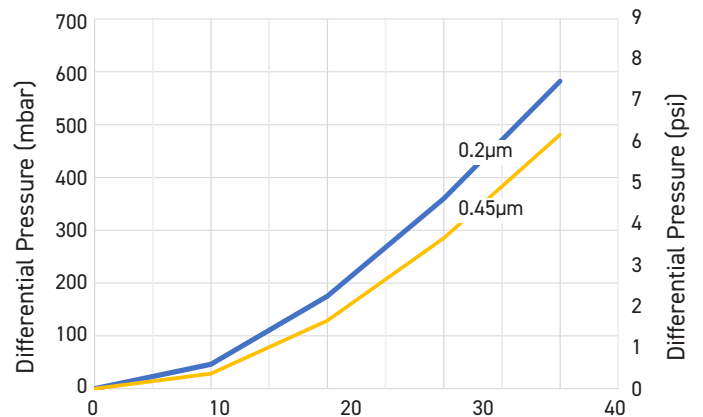
Benefits

- Ensures the safety of the water prior to bottling
- Increased process control with increased operational efficiency
- Protects the purity and essential characteristics of the source water

Applications

BEVPOR MC membrane filter cartridges are intended for final stabilization prior to bottling/canning, ensuring aseptic packaging of your water beverage.

Water Flow Rates



Flow per (L / min) for liquid @ 20°C and 1cp per 10'' cartridge



Specifications

Filtration Media	Polyethersulfone
Upstream Support	Polypropylene
Downstream Support	Polypropylene
Inner Support Core	Polypropylene
Outer Protection Cage	Polypropylene
Endcaps	Nylon
Endcap Inserts	316 Stainless Steel
Standard O-rings	Silicone
Effective Filtration Area (EFA) per 10" module	Up to 0.9m ² (9.68ft ²)

Integrity Test Data

All BEVPOR filters are flushed with pharmaceutical grade purified water prior to dispatch. Integrity testing should be performed to the following limits:

Diffusional Flow (DF) Test Parameter	0.2µm	0.45µm
Test Pressure (barg)	2.4	1.7
Test Pressure (psig)	35	25
Max DF per 10" (mL/min)	21.8	20.2

Recommended Operating Conditions

Operating Temperature	Max Forward dP (barg / psi)
20°C (68°F)	5.0 barg (72.5 psi)
40°C (104°F)	4.0 barg (58.0 psi)
60°C (140°F)	3.0 barg (43.5 psi)
80°C (176°F)	2.0 barg (29.0 psi)
90°C (194°F)	1.0 barg (14.5 psi)
>100°C (>202°F)	0.3 barg (4.0 psi)

Up to 70°C (158°F) for continuous operation.

Regeneration and Sterilization

BEVPOR MC cartridges can be repeatedly steam sterilized in-situ or autoclaved at up to 130°C (266°F).

BEVPOR MC cartridges can withstand caustic (NaOH) concentrations of up to 0.5mMol at 65°C under dynamic conditions.

Food Contact Compliance

BEVPOR MC filter cartridges conform to the relevant requirements laid out in EC1935/2004, EU10/2011, FDA 21 CFR part 177 and current USP Plastics Class VI -121°C.

BEVPOR MC filter cartridges are manufactured from components which are free from PFAS.

For more detailed information on material compliance please refer to the BEVPOR Product stewardship documents.

Bacterial Retention Characteristics

BEVPOR MC filters have been validated under bacterial challenge testing following ASTM F838-05 methodology on 10" cartridges with more than 10⁷ cfu per cm² using *Brevundimonas diminuta*.

In addition, challenges with the following EU regulated organisms have been performed.

Organism	LRV when challenged with a minimum of 10 ⁷ cfu per cm ²	
	0.2µm	0.45µm
<i>Serratia marcescens</i>	Fully Retentive	Fully Retentive
<i>Escherichia coli</i>	Fully Retentive	Fully Retentive
<i>Enterococcus faecalis</i>	Fully Retentive	Fully Retentive
<i>Clostridium perfringens</i>	Fully Retentive	Fully Retentive
<i>Pseudomonas aeruginosa</i>	Fully Retentive	Fully Retentive
<i>Brevundimonas diminuta</i>	Fully Retentive	5
<i>Acidovorax facilis</i>	Fully Retentive	Fully Retentive

* FR - Fully retentive during challenge

When expressed as titre reduction "FR" equates to >10⁷ per 10" module

Product Assurance

All BEVPOR MC filter cartridges undergo final product quality control prior to shipment, involving an integrity test to ensure product integrity prior to dispatch. Product is packaged and sealed in a protective polyethylene bag within a controlled manufacturing environment.

Ordering information

BMC - - A

Code	Size	Code	Micron	Code	Endcap	Code	O-ring
1	10"	02	0.2	C	Fin/226 Bayonet	S	Silicone
2	20"	04	0.45	D	Fin/222		
3	30"			G	Recess/222		
4	40"			R	BF/222 Bayonet		



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