# BEVPOR MW BOTTLED WATER Filter Cartridges





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

The inert and highly asymmetric PES membrane provides validated microbial retention to regulated, contaminating organisms. The 0.2 $\mu$ m grade provides complete sterility in accordance to ASTM F838-05 requirements. Combined with hydrophilic properties for easy integrity testing, BEVPOR MW filters provide assured performance throughout their service life.

The incorporation of an integral pre-filter layer allows graded retention throughout the depth of the filter to resist blockage, resulting in increased capacity and long service lifetimes. BEVPOR MW filters have been designed to provide a cost effective solution to the microbial sterilization and stabilization of bottled water by providing increased process control with increased operational efficiency.

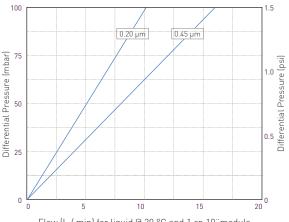
#### **Features**

- Validated retention to industry regulated organisms
- Inert materials of construction
- Easily integrity tested in situ
- Integral depth pre-filtration layer

#### **Benefits**

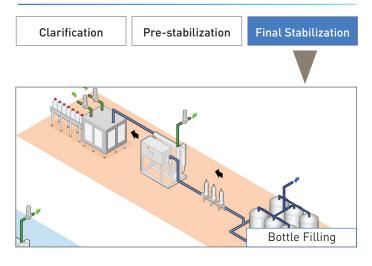
- Ensures the safety of the water prior to bottling
- Protects the purity and essential characteristics of the source water
- Assures performance of the filtration
- Increased throughput to blockage

### **Performance Characteristics**



Flow (L / min) for liquid @ 20 °C and 1 cp 10"module Recommended water flow rate of 101/min/10"module

## Filtration Stage



# **BEVPOR MW BOTTLED WATER**



## **Specifications**

#### Materials of Construction

Filtration Membrane:
 Prefilter Layer:
 Upstream Support:
 Downstream Support:
 Inner Support Core:
 Outer Protection Cage:
 End Caps:
 Polyester
 Polyester
 Polypropylene
 Polypropylene
 Nylon

■ End Cap Insert: 316L Stainless Steel
■ Standard o-rings: Silicone /EPDM

#### Food Contact Compliance

Materials conform to the relevant requirements of 21CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C and ISO10993 equivalents.

#### **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

#### Effective Filtration Area (EFA)

10" (250 mm) Up to 0.6 m<sup>2</sup> (6.45 ft<sup>2</sup>)

#### Cleaning and Sterilization

BEVPOR MW 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. Please refer to our Clean in Place support guide or contact your local Parker representative for more information.

#### **Retention Characteristics**

0.2µm BEVPOR MW filters have been validated to provide sterile effluent after bacterial challenge testing following ASTM F838-05 methodology on 10" cartridges with more than 10<sup>7</sup>cfu per cm<sup>2</sup> using Brevundimonas diminuta.

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

Organism	LRV when challenged with a minimum of 10 <sup>7</sup> cfu per cm <sup>2</sup>		
	0.20	0.45	
Serratia marcescens	FR	FR	
Escherichia coli	FR	FR	
Enterococcus faecalis	FR	FR	
Clostridium perfringen	FR FR	FR	
Pseudomonas aerugino	sa FR	FR	
Brevundimonas diminu	ta FR	5	
FR - Fully retentive durin	a challenge		

#### **Integrity Test Data**

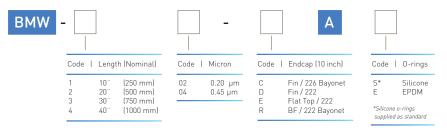
All filters are flushed with pharmaceutical grade purified water prior to despatch. They are integrity tested to the following limits:

Diffusional Flow	Micron Rating	
Test Parameters	0.20	0.45
Test Pressure (barg) Test Pressure (psig)	2.8 40.6	1.7 25.0
Max Diffusional Flow per 10" (ml /min)	16.0	16.0

#### Manufacturing Traceability

Each filter element displays the product description, product code and lot number. Additionally each filter module displays a unique serial number providing full manufacturing traceability.

## Ordering Information



### VSH & HSL range of Sanitary Beverage Housings



- Multi and single elements
- Designed specifically for the food and beverage industry
- 0.4µM Ra internal, 0.25µM Ra external
- High quality crevice free construction
- Available for up to 30 round filters
- Sanitary vent, tri-clamp connections as standard
- Sanitary body closure as standard