# SUPAPORE VPW



# HIGH FLOW BEVERAGE GRADE MEMBRANE

Within the beverage industry, it is important that products are microbiologically stabilised prior to packaging to prolong shelf life without affecting the nature of the product. Minimising the cost of stabilisation whilst maintaining beverage quality remains a constant driver. Amazon **SupaPore VPW** is a high flow advanced PES membrane filter cartridge designed to meet these requirements.

Amazons **SupaPore VPW** cartridges can be in-situ steam sterilised and superior chemical resistance allows the cartridges to be repeatedly cleaned for a longer service life.

### **Applications**

Clarification and microbiological stabilisation of Beers, Wines, Bottled water and other beverages.

#### **Cartridge Construction**

All cartridges are thermally bonded and adhesive free. Each unit is preflushed with ultra pure water and integrity tested before final assembly.

- Meets requirements on materials used for articles intended to come into contact with food as described in CFR Title 21 as well as the requirements for food contact as detailed in European Regulation (EC) Number 1935/2004
- Meets current USP requirements for extractables
- Full product validation guide available

Amazon Filters manufactures a comprehensive range of filter housings for SUPAPORE VPW cartridges including the industrial 50 and 60 Series and the 70 Series for hygienic applications. Please consult our Sales Office for further details on the full range.



# **SUPAPORE VPW FEATURES AND BENEFITS**

- High surface area offering high flow rates and long life
- Utilises naturally hydrophilic PES membrane providing low adsorption of protein, colour and flavour components
- Cartridge exhibits wide chemical compatibility and can be regenerated for extended service life
- Repeatedly integrity testable to assure consistent performance throughout their service life
- Range of removal ratings and validated\*1 for consistent and reliable performance
- Suitable for most sanitisation regimes including steaming, autoclaving, hot water flush and most common sanitising agents
- (Note: steaming, autoclaving and hot water sanitisation must use the glass filled end-cap option)
- \*1 See product guides for further details stating test method and rated efficiencies

# **TECHNICAL DATA**

#### **Dimensions**

Outside Diameter: 68.5mm

0.65m<sup>2</sup> - 0.75m<sup>2</sup> (Per 10") Typical Surface Area: Length: See ordering guide

#### Sterilisation and Sanitisation\*2

Steam or Autoclave: 121°C for 15 mins (40 cycles) Hot Water: 90°C for 30 mins (0.2 bar ∆p max) \*<sup>2</sup>Applies to single open end cartridges only. For all steaming and hot water applications, the Glass Filled end cap option must be used

## **Maximum Operating Conditions**

Temperature:

Recommended Maximum Differential Pressure:

4.0 Bar @ 20°C Forward Flow: Reverse Flow 3.5 Bar @ 20°C

Product validation guide available on request. All SUPAPORE VPW cartridges are manufactured under strict control with batch number identification, giving full traceability on all components.

#### **Materials of Construction**

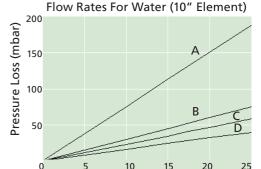
Filter Media: Polyethersulphone (PES) Cage, Core & End Caps: P - Polypropylene (PP)

D - Polypropylene Cage and Endcaps,

Glass Filled PP Core

### **Bacterial Challenge**

16VPW002: LRV>10<sup>T1</sup> (Brevundimonas diminuta (ATCC 19146)) 16VPW004: LRV>10<sup>8</sup> (Serratia Marcescens (ATCC 14756))



A=0.1μm B=0.2μm C=0.45μm D=0.65/0.8μm Flow Rates (lt/min)

#### **INTEGRITY TEST SPECIFICATION**

Micron Rating	Bubble Point In Water	Diffusion Flow (cc/min/10") In Water
0.1µm	4140mBar (60 psi)	≤ 30 @ 3310mBar
0.2µm	3030mBar (44 psi)	≤ 30 @ 2410mBar
0.45µm	1720mBar (25 psi)	≤ 30 @ 1380mBar
0.65µm	1310mBar (19 psi)	≤ 30 @ 1030mBar
0.8µm	1030mBar (15 psi)	≤ 30 @ 830mBar
1.0µm	690mBar (10 psi)	≤ 30 @ 550mBar

# Ordering Guide

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MEDIA
VP - Polyethersulphone
/ Polypropylene VD - Polyethersulphone
/ Polypropylene Cage
and Endcaps, Glass
Filled PP Core

GRADE W - Single Layer Beverage Grade

MICRON RATING 001 - 0.10µm 002 - 0.20 004 - 0.45 006 - 0.65 008 - 0.80 010 - 1.0

LENGTH 09 - 251mm 20 - 510 30 - 757 40 - 1016

CONNECTIONS 0 - DOE A - Code A B - Code B\*3 S - Code S 2 - Code 2 3 - Code 3 6 - Code 6 7 - Code 7 8 - Code 8 9 - Code 9

SEAL B - Buna E - EPDM S - Silicone V - Viton

**O**PTIONS G -Glass filled PP end cap

Example: 16VPW004-303SA = Polyethersulphone media with polypropylene core, Beverage Grade, 0.45µm, triple length 30" long, Code 3 end fitting with Silicone seal.

# INDUSTRIES AND APPLICATIONS

Reduction of spoilage organisms Wineries

Sterilisation prior to bottling

**Breweries** Yeast Reduction

> Cold stabilisation prior to packaging Sterilisation of Dealcoholised liquors

**Soft Drinks** Sterile filtration of mineral water

Sterilisation of product make-up water

**Utilities** Sterilisation of critical water

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<sup>\*3</sup>Code B - to fit Amazon 50 Series housings only