

# SUPAPORE VPWS

## Superior Life Beverage Grade Filter



In beverage manufacturing it is important that products are micro-biologically stabilised prior to packaging to prolong shelf life. This needs to be achieved without affecting the nature of the product and in a cost effective manner. Therefore minimising the cost of stabilisation whilst maintaining beverage quality remains a constant driver. In response to this industry need, Amazon has developed **SupaPore VPWS** filters using an advanced asymmetric PES membrane optimised for beverage applications. This provides superior throughputs, without affecting taste, aroma or colour. It is ideal for processes where long on-stream life is vital.

Amazon's **SupaPore VPWS** cartridges can be in-situ steam sterilised and offer excellent chemical resistance enabling the cartridges to be repeatedly cleaned for a longer service life.

### Applications

Clarification and microbiological stabilisation in production of 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 for materials intended to come into contact with food as described in CFR Title 21
- Meets the requirements for food contact as detailed in European Regulation (EC) Number 1935/2004
- Robust design allows multiple regenerations and sanitisations
- Full product validation guide available

Amazon Filters manufactures a comprehensive range of filter housings for **SupaPore VPWS** 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.

## Features and Benefits

- High surface area asymmetric membrane optimised for beverage applications offering superior throughputs
- 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\* for consistent and reliable performance
- Suitable for most sanitisation regimes including steaming, autoclaving, hot water flush and most common sanitising agents
- All individual packing bags are anti static

(Note: steaming, autoclaving and hot water sanitisation must use the Reinforced Polypropylene End Cap option)

\* See product guides for further details stating test method and rated efficiencies

## Industries and Applications

- |                    |  |
|--------------------|--|
| <b>Wineries</b>    | <ul style="list-style-type: none"><li>• Reduction of spoilage organisms</li><li>• Sterilisation prior to bottling</li></ul>  |
| <b>Soft Drinks</b> | <ul style="list-style-type: none"><li>• Sterile filtration of mineral water</li><li>• Sterilisation of product make-up water</li></ul>                             |
| <b>General</b>     | <ul style="list-style-type: none"><li>• Yeast Reduction</li><li>• Cold stabilisation prior to packaging</li><li>• Sterilisation of dealcoholised liquors</li></ul> |
| <b>Utilities</b>   | <ul style="list-style-type: none"><li>• Sterilisation of critical water</li></ul>  |

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# SupaPore VPWS Technical Data

## Dimensions

Outside Diameter: 71mm  
 Typical Surface Area: 0.7 - 0.8m<sup>2</sup> (Per 10")

## Sterilisation and Sanitisation\*1

Steam or Autoclave: 121°C for 60 mins (up to 240 cycles)  
 134°C for 30 mins (up to 25 cycles)

Hot water: Up to 95°C

\*1 Applies to single open end cartridges only. For all steaming and hot water applications, the Reinforced Polypropylene End Cap option must be used.

## Maximum Operating Conditions

Temperature: 80°C

Recommended Maximum Differential Pressure:

Forward Flow: 5.0 Bar @ 20°C, 2.0 Bar @ 80°C

Reverse Flow: 2.0 Bar @ 20°C

Recommended change-out differential pressure: 2.5 Bar

## Standard Materials of Construction

Filter Media: Polyethersulphone (PES)

Media support: Polypropylene

End Caps: Polypropylene

Cage/Core: Polypropylene

## Microorganism Removal Efficiency (per 10" cartridge)\*2

16VPWS02: LRV >10 (*Brevundimonas diminuta*)

16VPWS04: LRV >10 (*Lactobacillus lindneri*)

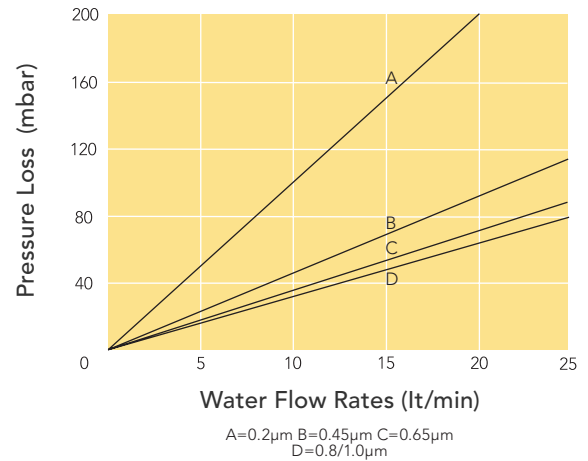
16VPWS06: LRV >9 (*Lactobacillus lindneri*)

16VPWS08: LRV >9 (*Saccharomyces cerevisiae*)

\*2 When challenged with 10<sup>7</sup>/cm<sup>2</sup>

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

## Flow Rates For Water (10" Element)



## Integrity Test Specification

Micron Rating	Minimum Bubble Point in Water	Diffusion Flow (cc/min/10") In Water
0.2µm	3200mBar (46 psi)	≤ 21 @ 2500mBar
0.45µm	1900mBar (25 psi)	≤ 15 @ 1500mBar
0.65µm	1200mBar (19 psi)	≤ 13 @ 1000mBar
0.8µm	800mBar (15 psi)	≤ 8 @ 800mBar
1.0µm	800mBar (15 psi)	≤ 8 @ 800mBar

# Ordering Guide

16VP	WS	04 -	30	3	S	A	
Media	Grade	Micron Rating	Length	End Caps	Seal	Branding	Options
16VP - Polyethersulphone / Polypropylene	WS - Beverage Grade	02 - 0.20µm 04 - 0.45 06 - 0.65 08 - 0.80 10 - 1.0	09 - 251mm 20 - 510 30 - 757 40 - 1016	A - Code A B - Code B*3 S - Code S 2 - Code 2 3 - Code 3 7 - Code 7 8 - Code 8	B - Buna E - EPDM S - Silicone V - Viton F - FEP / Silicone G - FEP / Viton	A - Amazon	G - Reinforced Polypropylene End Cap

Example: 16VPWS04-303SA = Polyethersulphone media with polypropylene core, Beverage Grade, 0.45µm, triple length 30" long, Code 3 end fitting with Silicone seal.

\*3 Code B - to fit Amazon 50 Series housings only

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