

SUPAPORE VP

Pleated Membrane Cartridge



Supapore VP Microfiltration cartridges use a pleated high surface area Polyethersulphone membrane that has been designed for use in a wide range of liquid processing applications. The naturally hydrophilic PES membrane contains no wetting agents and has very low levels of extractables making this cartridge an ideal choice for systems requiring a reliable and consistent high-quality filtrate.

Product Features

Supapore VP cartridges feature:

- A naturally hydrophilic PES membrane
- Low protein-binding characteristics
- Exceptionally high flow rates with low clean pressure losses



- Bacterial retention data with LRVs using *Brevundimonas diminuta* and *Serratia marcescens*
- Wide chemical compatibility

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

- Fast rinse-up time to 18 Megohm cm^{*1}
- Non Pyrogenic^{**2}
- Materials meet US FDA Title 21 and USP Class VI requirements
- Meets the requirements for food contact as detailed in European Regulation (EC) Number 1935/2004
- Meet current USP requirements for extractables

Available in a wide range of grades & absolute rated pore sizes:

- General Grade
- Electronics Grade
- Biological Grade

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 Reinforced Polypropylene End Cap option)



Amazon Filters manufactures a comprehensive range of filter housings for Supapore VP 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

- Validated^{*3} removal ratings for consistent and reliable performance
- Fully Integrity Testable - Bubble Point and Diffusional Flow values provided for all pore sizes^{*4}
- Pleated PES membrane that exhibits exceptionally low protein-binding characteristics
- High surface area giving high flow rates and low initial pressure losses
- Wide chemical compatibility, meets FDA requirements
- Range of integrity testable ratings from 0.03 to 1.0µm (depending on grade)
- Thermal bonding process eliminates adhesives and ensures minimal extractables
- Identification mark on every cartridge
- Comprehensive Product Validation Guide available
- All individual packing bags are anti static

^{*1}E grades only ^{**2}B grades only ^{*3}See product guides for further details stating test method and rated efficiencies ^{*4}E and B Grades only

Industries and Applications

- | | |
|------------------------|--|
| Pharmaceuticals | • Sterile filtration, WFI, Ophthalmics, Oral medications, Large volume parenterals |
| Fine Chemicals | • Aqueous and Organic bulk feeds, Solvents, Bubble jet inks |
| Electronics | • High purity water, Polishing loop return lines, Point of use |
| Cosmetics | • Alcohol, Mouthwashes, Make up water |

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SupaPore VP Technical Data

Dimensions

| | Standard 10" | Junior 5"*7 |
|-----------------------|---|--------------------|
| Outside Diameter: | 68.5mm | 55.5mm |
| Typical Surface Area: | 0.65m ² - 0.75m ² (10") | 0.22m ² |

Sterilisation and Sanitisation*5

| | |
|---------------------|---|
| Steam or Autoclave: | 121°C for 60 mins (240 cycles) 135°C for 30 mins (25 cycles) |
| Hot Water: | 90°C for 30 mins (0.2 bar Δp max) |

*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: | 4.0 Bar @ 20°C |
| Reverse Flow: | 3.5 Bar @ 20°C |
| Recommended change-out differential pressure: | 2.5 Bar |
| Product validation guide available on request. All SupaPore VP cartridges are manufactured under strict control with batch number identification, giving full traceability on all components. | |

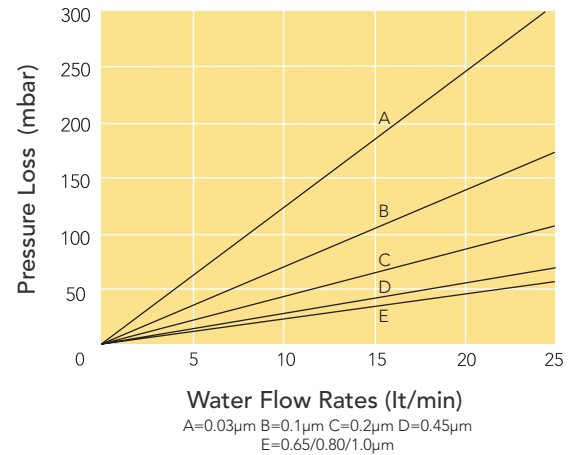
Standard Materials of Construction

| | |
|----------------|-------------------------|
| Filter Media: | Polyethersulphone (PES) |
| Media support: | Polypropylene |
| End Caps: | Polypropylene |
| Cage/Core: | Polypropylene |

Microorganism Removal Efficiency (per 10" cartridge)

| | |
|-----------|---|
| 16VPB002: | LRV >11 (<i>Brevundimonas diminuta</i> (ATCC 19146)) |
| 16VPB004: | LRV >8 (<i>Serratia marcescens</i> (ATCC 14756)) |

Flow Rates (10" Element)



Integrity Test Specification, B grade only

| Micron Rating | Bubble Point In Water | Diffusion Flow (cc/min/10") In Water |
|---------------|-----------------------|--------------------------------------|
| 0.03µm | 5172mBar (75 psi) | ≤ 30 @ 4138mBar |
| 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

| 16VP | G | 004 - | 30 | 3 | S | A | |
|---|--|---|--|---|---|------------|--|
| Media | Grade | Micron Rating | Length | End Caps | Seal | Branding | Options |
| 16VP - Polyethersulphone/ Polypropylene 16VD - Polyethersulphone / Polypropylene Cage and Endcaps, Reinforced Polypropylene Core | B - Biological E - Electronics G - General | 00A - 0.03µm 001 - 0.10 ¹⁸ 002 - 0.20 004 - 0.45 006 - 0.65 008 - 0.80 010 - 1.0 | 02 - 64mm ¹⁹ 05 - 125 ¹⁹ 09 - 251 20 - 510 30 - 757 40 - 1016 | J - Junior ⁷ 0 - DOE A - Code A B - Code B ⁶ S - Code S 2 - Code 2 3 - Code 3 6 - Code 6 7 - Code 7 8 - Code 8 9 - Code 9 | B - Buna E - EPDM F - FEP/Silicone S - Silicone V - Viton | A - Amazon | G - Reinforced Polypropylene End Cap A - Millidisk Retrofit Adaptor ⁹ B - 1/2" BSPM Adaptor ⁹ C - Trueseal Retrofit Adaptor ⁹ |

Example: 16VPG004-303SA = Polyethersulphone media with polypropylene core, General Grade, 0.45µm, triple length 30" long, Code 3 end fitting with Silicone seal.

*6 Code B - to fit Amazon 50 Series housings only

*7 Junior cartridges available in VPB and VPG media, 2" & 5" lengths, Code J, Single open ended only. Reinforced Polypropylene End Caps are standard on Junior products

*8 Not available in B grade

*9 Junior filters only

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