

SUPAPORE THB

High Flow Pleated Membrane Cartridge



SupaPore THB Microfiltration cartridges have been designed specifically for air and gas applications where the highest flow rates and lowest pressure drops are critical e.g. off-gas filtration in fermentation. They are manufactured using a naturally hydrophobic expanded PTFE membrane which will not wet-out with water vapour, thus maintaining maximum flow in all typical process conditions. These robust filters can be repeatedly steam sterilised offering long life and lowest costs.

Product Features

SupaPore THB cartridge features:

- A naturally hydrophobic PTFE membrane rated at 0.2µm in liquids and 0.02µm in gases*
- Large diameter core for higher flow rates
- Robust polypropylene core and support materials
- Minimal fibre migration
- Wide chemical compatibility
- Validation by bacterial and aerosolized bacteriophage challenge

(*0.02 micron retention has been validated using MS-2 phage as a challenge organism. However, gas filtration theory (MPPS, Most Penetrating Particle Size) indicates that retention down to much lower levels e.g. 0.003 micron, would be expected for this filter)

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

- Can be steam sterilised multiple times
- Meet current US FDA CFR Title 21 requirements
- Fully integrity testable by Water Intrusion, Bubble Point or Diffusion Flow test*1
- Modules are integrity tested during manufacture

Amazon Filters manufactures a comprehensive range of filter housings for SupaPore THB 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

- Very high flow rates and low pressure drops
- Validated*1 removal ratings for consistent and reliable performance
- Fully Integrity Testable - Water Intrusion, Bubble Point and Diffusional Flow values provided*1
- Features naturally hydrophobic expanded PTFE membrane and polypropylene hardware
- Thermal bonding process eliminates adhesives and ensures minimal extractables
- Identification mark on every cartridge
- Full product validation guide available
- All individual packing bags are anti static

*1 See product guides for further details stating test method

Industries and Applications

- | | |
|----------------------------|--|
| Food & Beverage | • CO ₂ lines, Sterile vent for storage and transfer tanks |
| Pharmaceutical | • Sterile venting, Fermenter inlet/off-gas filtration, Solvent filtration, Polishing |
| Fine Chemicals | • Polymers, Aggressive acids, Bases, Solvents, Ozonated DI Water |
| Electronics | • Photoresists, Acids, Etch Solutions |



SupaPore THB Technical Data

Dimensions

Outside Diameter: 71mm
Typical Surface Area: 0.75m² (Per 10")

Sterilisation and Sanitisation*2

Steam or Autoclave: 135°C for >150 hours

*2 Applies to single open end cartridges only. For all steaming and hot water applications, the stainless steel end cap insert or Reinforced Polypropylene End Cap option must be used.

Maximum Operating Conditions

Temperature: 80°C (for intermittent exposure to air)
60°C (for continuous exposure to air)

Recommended Maximum Differential Pressure:

Forward Flow: 5.0 Bar @ 20°C, 0.5 bar @140°C

Reverse Flow: 3.0 Bar @ 20°C, 0.5 bar @140°C

Recommended change-out differential pressure: 2.5 Bar

Standard Materials of Construction

Filter Media: Polytetrafluoroethylene (PTFE)

Media Support: Polypropylene

End Caps: Polypropylene

Cages/Core: Polypropylene

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

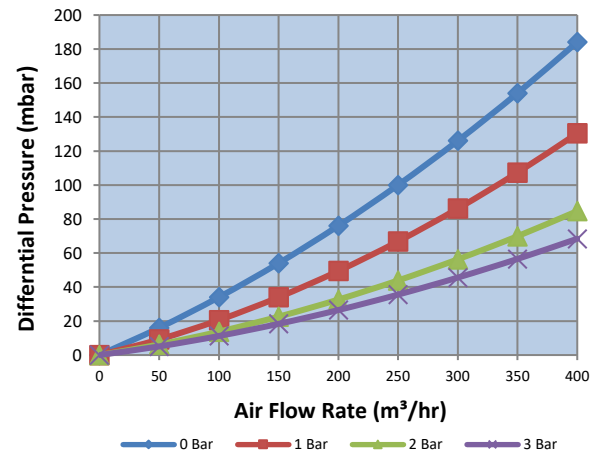
Integrity Test Specification

Minimum Bubble Point		Diffusional Flow Test Pressure		Maximum Diffusional Flow*3	Water Intrusion Test Pressure		Maximum Water Intrusion*3
bar	psi	bar	psi	ml/min	bar	psi	ml/10mins
1.0	14.5	0.7	10	11	2.5	36.3	13

*3 - per 10" cartridge

To convert maximum Water Intrusion Flow values to maximum Water Flow values divide the WIT flow rate by 3.5. The test pressure remains the same.

Air Flow Pressure Drop
(10" Cartridge)



Ordering Guide

16TH	B	002 -	09	7	E	A	G
Media	Grade	Micron Rating	Length (mm)	End Caps	Seal	Branding	Options
TH - PTFE / Polypropylene	B - Biological	002 - 0.02µm	05 - 137 09 - 250 20 - 497 30 - 744 40 - 991	A - Code A B - Code B*4 S - Code S 2 - Code 2 3 - Code 3 7 - Code 7 8 - Code 8	B - Buna E - EPDM F - FEP / Silicone G - FEP/Viton S - Silicone V - Viton	A - Amazon	G - Reinforced Polypropylene End Cap (standard)

Example: 16THB002-207SAG = PTFE media with polypropylene support and core, Biological Grade, 0.2µm, double length 20" long, Code 7 end fitting with Silicone seal and Reinforced Polypropylene End Cap.

*4 Code B to fit Amazon 50 Series housings only

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