

# SUPAPORE TMB

## High Temp Sterile Air Vent Filter



SupaPore TMB cartridges have been designed specifically for continuous high temperature air applications where standard polypropylene membrane support layers can suffer from accelerated oxidation. This degradation can lead to particle shedding and contamination of the process.

The membrane support / drainage layers of the SupaPore TMB are made of PPS (Polyphenylene Sulphide) which has excellent resistance to oxidative and ozonated environments.

This, in conjunction with the polypropylene hardware with elevated levels of antioxidants, makes the SupaPore TMB ideal for venting of WFI tanks where filters are subjected to continuous high temperatures from housing heating jackets.

The heat-resistant membrane support also means the filter is ideal for inlet air for large scale fermentations where raised air temperature are often employed.



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
- Modules are integrity tested during manufacture
- 0.2µm rated filter in liquids and 0.02µm in gases \*1
- Fully integrity testable by Water Intrusion, Bubble Point or Diffusion Flow test\*2

Amazon Filters manufactures a comprehensive range of filter housings for SupaPore TMB cartridges including the hygienic 71 Series vent housing and 74A Series. Please consult our Sales Office for further details on the full range.

(\*1 Gas filtration theory (MPPS, Most Penetrating Particle Size) indicates that retention down to much lower levels e.g. 0.02 micron, would be expected for this filter)

## Features and Benefits

- High flow rates and low pressure drops ideal for vent applications
- Temperature resistant Polyphenylene Sulfide membrane supports ensure no oxidation of materials
- Polypropylene hardware manufactured with added antioxidant to extend lifetime in high temperature environments
- Validated\*1 removal of bacteria and bacteriophage for consistent and reliable performance
- Fully Integrity Testable - Water Intrusion, Bubble Point and Diffusional Flow values provided\*1
- Thermal bonding process eliminates adhesives and ensures minimal extractables
- Unique identification mark on every cartridge to ensure tracability
- All individual packing bags are anti static

\*2 See product guides for further details stating test method

## Industries and Applications

- Pharmaceuticals** • Sterile filtration applications with heated vent housings
- Industrial Biotechnology** • Fermenter inlet/off-gas filtration



# SupaPore TMB Technical Data

## Dimensions

Outside Diameter: 71mm  
 Surface Area 0.56m<sup>2</sup> (10")

## Sterilisation and Sanitisation

Steam or Autoclave: 100 x 30 min cycles @134°C

## Maximum Operating Conditions

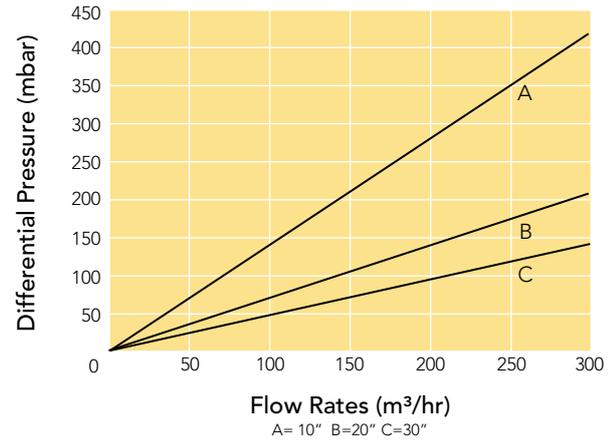
Temperature: 90°C (a minimum 6 months continuous exposure in air)  
 Recommended Maximum Differential Pressure:  
 Forward Flow: 5.0 Bar @ 20°C, 1.5 bar @121°C  
 Reverse Flow: 2.0 Bar @ 20°C, 1.5 bar @121°C  
 Recommended change-out differential pressure: 2.5 Bar

## Standard Materials of Construction

Filter Media: Polytetrafluoroethylene (PTFE)  
 Media Support: Polyphenylene Sulfide (PPS)  
 End Caps: Heat Stabilised Polypropylene  
 Cages/Core: Heat Stabilised Polypropylene

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

Air Flow Rates (10" Element at 0 Bar)



## 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	10	2.5	36.3	12

\*3 - per 10" cartridge

## Ordering Guide

16TM	B	002 -	09	7	S	A	G
Media	Grade	Micron Rating	Length	End Caps	Seal	Branding	Options
TM - PTFE / Polypropylene High Temperature	B - Biological	002 - 0.02µm	09 - 250 20 - 497 30 - 744	7 - Code 7	S - Silicone	A - Amazon	G - Reinforced Polypropylene End Cap (standard)

Example: 16TMB002-207SAG = PTFE media with polyphenylene membrane support and polypropylene core, Biological Grade, 0.2µm, double length 20" long, Code 7 end fitting with Silicone seal and Reinforced Polypropylene End Cap.

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16TMB - Issue 01