

# Sartofluor® HR

## Heat Resistant Air | Gas Filter



### Product Information

Sartofluor® has been synonymous with reliable air | gas filtration for decades. Employing the proven single-layer ePTFE membrane technology, this latest addition to the Sartofluor® broad offering of filter cartridges is specifically designed for long-term, high-temperature applications, such as Water For Injection (WFI) loop venting. Bacterial, phage and particle retention validation make Sartofluor® HR a valuable addition to the Sartofluor® product family.

### Designed for High Temperature Applications

Sartofluor® HR filter cartridges can be used for an extended time period of at least six months at a temperature of 90 °C. Incorporating the proven hydrophobic 0.2 µm Sartofluor® ePTFE membrane (sterilizing grade according to current ASTM F-838 guideline), Sartofluor® HR also provides a validated retention of particles (sizes 0.005 µm | 0.3 µm), which is of the utmost importance for these types of applications. Integrity testing by Water Intrusion Test (WIT) allows in situ integrity testing and circumvents the use of alcohol for wetting. Multiple in-line steaming | autoclaving cycles can be conducted without any loss of performance.

# Introduction

## Applications

- Water For Injection (WFI) tanks | loops (80 – 90 °C)
- Autoclaves
- Permanently heated filter housings
- All applications where hot air (approx. 90 °C) is used over long periods

## Inherent Quality Provides Full Confidence

The 0.2 µm hydrophobic ePTFE membrane is self de-wetting and, therefore, provides high air flow rates even at very low differential pressures over an extended process time. Furthermore, the polyphenylene sulfide (PPS) drainage fleece is resistant to heat.

Validated by various retention tests, Sartofluor® HR filter cartridges ensure sterile filtration of air | gas. The following indispensable requirements are fulfilled:

- Retention of  $\geq 10^7$  *Brev. diminuta*/cm<sup>2</sup>
- Retention of  $\geq 10^7$  Bacteriophage MS2/cm<sup>2</sup>
- Retention of particles: sizes 0.005 µm | 0.3 µm
- Clear labeling with filter type, lot number, individual unit serial number, 2D data matrix code
- Developed, produced and distributed under a quality management system certified to DIN/ISO 9001.
- USP Plastic Class VI Test

## Technical Specifications

Available Sizes	Filtration Area [m <sup>2</sup>   ft <sup>2</sup> ]	Max. WIT @ 2.5 bar   36 psi [mL/10 min]	Max. WFT @ 2.5 bar   36 psi [mL/min]	Max. Diffusion @ 0.7 bar   10 psi [mL/min]*	Min. Bubble Point [bar   psi]*
<b>Cartridges</b>					
Size 1 (10")	0.56   6.03	12	0.34	10	1   14.5
Size 2 (20")	1.12   12.06	24	0.68	20	1   14.5
Size 3 (30")	1.68   18.09	36	1.03	30	1   14.5

\*Wetting agent IPA | Water (60 | 40).

## Max. Differential Pressure for Air

### In the Direction of Filtration

Temperature [°C]	20	90
Pressure [bar]	5	2
Pressure [psi]	72.5	29

### In the Reverse Direction of Filtration

Temperature [°C]	20	90
Pressure [bar]	2	1.5
Pressure [psi]	29	22

## Sterilization

### In-Line Steam Sterilization

- 134 °C, 30 min. at max. differential pressure of 0.5 bar | 7.25 psi in forward and reverse direction
- Max. 100 Sterilization Cycles

or

### Autoclaving

- 134 °C, 2 bar, 30 min
- Max. 100 Sterilization Cycles

## Technical Reference

Validation Guide DIR No.: 3215832

## Materials

### Membrane Filter

Single layer hydrophobic expanded polytetrafluoroethylene (ePTFE)

### Drainage Layer

Polyphenylene Sulfide (PPS)

### Core

Polypropylene (PP)

### Outer Support

Polypropylene (PP)

### End Caps

Polypropylene (PP)

### O-Rings

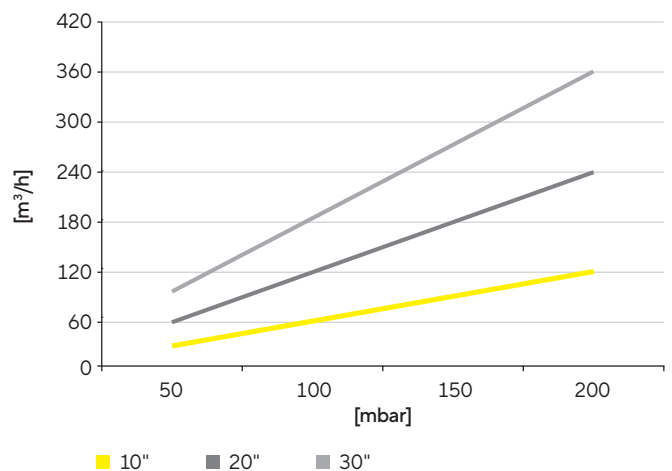
Silicone

## Pore Size

0.2 µm

## Performance

### Typical Air Flow



# Ordering Information



517 25 07 T - - - - HR

## Adapter

25: 2 Flange Bayonet adapter with 226 double o-ring

## Filter Size

1: 0.56m<sup>2</sup> | 6.03 ft<sup>2</sup> (10")  
2: 1.12m<sup>2</sup> | 12.06 ft<sup>2</sup> (20")  
3: 1.68m<sup>2</sup> | 18.09 ft<sup>2</sup> (30")

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