## SARTURIUS

# Sartopore® Air Midisart®

Gamma-Irradiatable or Autoclavable Single-Use Venting Filter for Critical Applications



#### **Product Information**

The Sartopore® Air Midisart® with its revolutionary hydrophobic 0.2  $\mu$ m PES membrane completely addresses the rigorous demands of small-scale, single-use, venting applications. Sartopore® Air Midisart® ensures sterilizing-grade venting performance in either direction. When the highest level of performance and security is required, the Sartopore® Air Midisart® is the only logical choice.

#### Introduction

This filter raises the bar and sets the standards when it comes to requirements needed for critical applications. Particle retention, particle release limits, phage retention and of course bacteria retention in air and liquids (bi-directional) are specifications that proof the quality of Sartopore® Air Midisart®.

100% factory integrity testing ensures inherent quality in every filter prior to use. Superior and steady flow rates over long duration imply highly efficient processes. The absence of fleeces guarantees no particle release. Tubing kinking is no issue due to the proven light-weight construction.

### **Applications**

- Single-use assemblies
- Small bioreactors
- Carboys
- Filling and transfer vessels
- Holding and storage tanks | bags
- Fill & finish applications
- Bags | Bottles | Tubing assemblies
- Mixers
- Cell Culture Chambers

## Inherent Quality Provides Full Confidence

The 0.2  $\mu$ m single-layer hydrophobic polyethersulfone (PES) membrane is self-dewetting and therefore provides high air flow rates even at very low differential pressures over an extended process time. All components were developed and are produced under full control of Sartorius. Furthermore the following indispensable requirements are fulfilled:

- Particulate release in quantities well within the requirements established for Grade A classification of cleanrooms under EU Annex1 in forward and reverse direction
- Bi-directional sterility proven by worst case liquid
  Bacterial Challenge Test in forward and reverse direction
- Retention of ≥ 10<sup>7</sup> Brev. diminuta/cm<sup>2</sup> in aerosol and liquid
- Retention of ≥ 10<sup>7</sup> MS-2 coliphage/cm<sup>2</sup> in aerosol
- Retention of particles sizes 0.005 µm | 0.3 µm
- 100% integrity tested prior to release
- Clear labeling with Lot number, individual unit number and "IN" as an indicator for direction of flow.
   All information lasered on the top part of each filter housing. No use of ink or glue labels.

## Technical Data

#### Filtration Area

20 cm<sup>2</sup> | 3 in<sup>2</sup>

## Integrity Testing

Min. Bubble Point ≥950 mbar | 13.8 psi Wetting agent: IPA/Water (60 | 40)

### Max. Differential Pressure for Air

Bi-directional: 2 bar

#### Pore Size

0.2 µm

#### Materials

#### Membrane

Hydrophobic polyethersulfone (PES)

#### Housing

Polypropylene (PP)

#### Connectors

Multiple stepped hose barb (in- and outlet)

Other connectors on request (Hose Barb, 1/4" NPT, Tri-clamp, small Hose Barb)

#### Sterilization

#### Gamma Irradiation or Autoclaving

max. temperature 134 °C for 30 min. (max. 20 cycles)

#### Note:

Multiple sterilization cycles bygamma-irradiation are not allowed.

Once a Sartopore® Air Midisart® was irradiated, further autoclaving steps are prohibited.

## Housing Diameter

64 mm | 2.5"

## Regulatory Compliance

- Each individual element is tested for integrity in direction of filtration
- Fully validated as sterilizing grade filters according to ASTM current F-838 guidelines
- Designed, developed and manufactured in accordance with an ISO 9001 certified Quality Management System
- USP Plastic Class VI Test
- Non fiber releasing according to 21 CFR
- This product meets the requirements established for Grade A classification of cleanrooms under the most current version of EU Annex1: Manufacture of Sterile Medicinal Products.
- Oxidizable Substances: The filtrate of these filter elements shows a negative reaction when tested according to the current USP

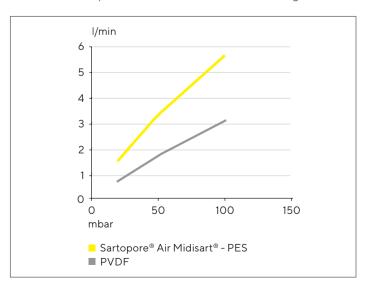
#### Technical Reference

Validation Guide SPK5813-e

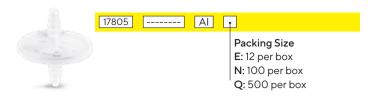
## Performance

#### **Superior Air Flow Rates**

The Sartopore® Air Midisart® PES membrane filters outperform any PVDF filters easily. Resulting flow rates at low differential pressures are illustrated in the diagram.



## Ordering Information



### Germany

Sartorius Stedim Biotech GmbH August-Spindler-Strasse 11 37079 Goettingen Phone +49 551 308 0

For further contacts, visit www.sartorius.com

#### USA

Sartorius Stedim North America Inc. 565 Johnson Avenue Bohemia, NY 11716 Toll-Free +1 800 368 7178