SARTORIUS

Product Datasheet

Sartofluor®

Cartridges GA and LG, Mini Cartridges, Junior, Maxicaps®, Midicaps® and Capsules



DOMINIQUE DUTSCHE

Product Information

Sartofluor® is especially suited to demanding venting applications with high volume gas streams, extreme humidity, and stringent Steam In Place regimes. The hydrophobic PTFE membranes used in Sartofluor® filters offer reliability, process security, and a long service life.

Introduction

The Sartofluor® family of filters has been on the market for over three decades and has improved over time in response to changing customer needs. Today, experience and filtration expertise are combined in our best sterile venting device ever.

Sartofluor® contains PTFE membrane making it the most hydrophobic vent filter available. The inherent hydrophobicity of the PTFE membrane is unaffected by repeated autoclaving or steaming and guarantees sterile filtration of both dry and moist gases. Sartofluor® filters show superior air flow rates throughout all sizes and formats.

Introduction

Applications

- Bioreactors (inlet | outlet)
- Storage tank venting
- Filling equipment venting
- Freeze dryer
- Autoclave venting

Sartofluor® GA: Filtration of air and gas
Sartofluor® LG*: Filtration of air and liquids (solvents)

* Filtration area of Sartofluor® LG is developed in order to optimize liquid filtration of solvents. Membrane and material composition of LG and GA is identical.

Benefits

The Most Reliable Sterile Venting Device
The 0.2 µm single-layer hydrophobic PTFE membrane offers superior moisture repellence and exceptional gas flow rates at low differential pressures.

All components were developed and are produced under the full control of Sartorius. In addition, the following critical requirements are met:

- Retention of ≥ 10^7 *Brev. diminuta*/cm² in aerosol and liquid
- Retention of ≥ 10^7 Bacteriophage MS2/cm² in aerosol
- Retention of particles sizes 0.005 µm | 0.3 µm
- Bi-directional sterility proven by worst case liquid Bacterial Challenge Test in forward and reverse direction
- 100% integrity tested prior to release
- Clear labelling with Lot. number and individual unit number. All information laser marked on each filter housing.





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Technical Specifications

Available Sizes	Filtration Area [m² | ft²]	WIT Test Pressure [bar | psi]	Sartocheck® 4+ and older		Sartocheck® 5 and Sartocheck® 5+	Test Pressure [bar | psi]	Max. Diffusion @ 0.7 bar | 10.2 psi [ml/min]	Min. Bubble Point [bar | psi]
			WIT [mL/10 min]	WFT [mL/ min]	Water Intrusion (Water Flow Rate based) [mL/min]			
Cartridges GA								
Size 0	0.375 | 4.05	2.5 | 36	7.0	0.2	0.200	0.7 | 10.2	6.0	1.0 | 14.5
Size 1	0.75 | 8.1	2.5 | 36	13.0	0.37	0.371	0.7 | 10.2	11.0	1.0 | 14.5
Size 2	1.5 | 16.1	2.5 | 36	26.0	0.74	0.743	0.7 | 10.2	22.0	1.0 | 14.5
Size 3	2.25 | 24.2	2.5 | 36	39.0	1.11	1.114	0.7 | 10.2	33.0	1.0 | 14.5
Cartridges LG								
Size 1	0.5 | 5.4	2.5 | 36	8.0	0.23	0.229	0.7 | 10	7.0	1.0 | 14.5
Size 2	1.0 | 10.8	2.5 | 36	16.0	0.46	0.457	0.7 | 10	14.0	1.0 | 14.5
Size 3	1.5 | 16.1	2.5 | 36	24.0	0.69	0.686	0.7 | 10	21.0	1.0 | 14.5
Mini Cartridges								
Size 7	0.05 | 0.54	2.5 | 36	–	–	–	0.7 | 10	2.0	1.0 | 14.5
Size 8	0.1 | 1.1	2.5 | 36	3.0	0.09	0.086	0.7 | 10	3.0	1.0 | 14.5
Size 9	0.2 | 2.2	2.5 | 36	4.0	0.114	0.114	0.7 | 10	4.0	1.0 | 14.5
Junior								
Size 7	0.05 | 0.54	2.5 | 36	–	–	–	0.7 | 10	2.0	1.0 | 14.5
Maxicaps®								
Size 1	0.5 | 5.4	2.5 | 36	8.0	0.23	0.229	0.7 | 10	7.0	1.0 | 14.5
Size 2	1.0 | 10.8	2.5 | 36	16.0	0.46	0.457	0.7 | 10	14.0	1.0 | 14.5
Midicaps®								
Size 7	0.05 | 0.54	2.5 | 36	–	–	–	0.7 | 10	2.0	1.0 | 14.5
Size 8	0.1 | 1.1	2.5 | 36	3.0	0.09	0.086	0.7 | 10	3.0	1.0 | 14.5
Size 9	0.2 | 2.2	2.5 | 36	4.0	0.114	0.114	0.7 | 10	4.0	1.0 | 14.5
Size 0	0.45 | 4.8	2.5 | 36	8.0	0.23	0.228	0.7 | 10	8.0	1.0 | 14.5
Capsules								
Size 4	0.015 | 0.16	–	–	–	–	0.7 | 10	0.8	1.0 | 14.5
Size 5	0.03 | 0.32	–	–	–	–	–	–	1.0 | 14.5

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Regulatory Compliance

- Each individual element is tested for integrity by Bubble Point and Diffusion test
- Fully validated as sterilizing grade filters according to current ASTM 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: This product was manufactured with a membrane which meets the criteria for a "non-fiber releasing" filter as defined in 21 CFR 210.3 (b) (6) and 211.72.
- Oxidizable Substances: The filtrate of these filter elements shows a negative reaction when tested according to the current USP

Available Pore Size

0.2 µm

Materials

Filter Membrane
ePTFE

Support Fleece
Polypropylene

Core
Polypropylene

End Caps
Polypropylene

O-Rings
Cartridges (GA and LG) | Mini Cartridges | Junior: Silicone (optional EPDM or fluoroelastomer)

Maxicaps® | Midicaps® | Capsules: EPDM

Capsule Housing
Midicaps® | Capsules: polypropylene

Max. Differential Pressure (in Direction of Flow)

Cartridges (GA and LG) | Mini Cartridges | Junior
5 bar | 72.5 psi at 20 °C
2 bar | 29 psi at 80 °C

Maxicaps®
5 bar | 72.5 psi at 20 °C
3 bar | 43.5 psi at 50 °C

Midicaps®
5 bar | 72.5 psi at 20 °C

Capsules
4 bar | 58 psi at 20 °C

Max. Back Pressure (in Reverse Direction of Flow)

Cartridges GA | Mini Cartridges | Junior
3 bar | 43.5 psi at 20 °C

Cartridges LG | Maxicaps® | Midicaps® | Capsules
2 bar | 29 psi at 20 °C

Sterilization

Cartridges (GA and LG) | Mini Cartridges | Junior
- Autoclaving
  134 °C, 2 bar | 29 psi, 30 min
  Sterilization Cycles*:
  Min. 25
- In-Line Steam Sterilization
  134 °C, 20 min. at max differential pressure of 0.5 bar | 7.25 psi
  Sterilization Cycles*:
  Min. 150
  Min. 25 (Mini Cartridges)

Maxicaps® | Midicaps® | Capsules
- Autoclaving
  134 °C, 2 bar | 29 psi, 30 min
  Sterilization Cycles*:
  Min. 25 (Maxicaps® | Midicaps®)
  Min. 5 (Capsules)

* No tests are conducted beyond the specified sterilization cycles.
Sartorius is not liable for any additional cycles initiated by the customer.

Note: No In-Line Steam Sterilization for Maxicaps® | Midicaps® | Capsules

Technical References

Cartridges (GA and LG) | Mini Cartridges | Junior |
Maxicaps® | Midicaps® | Capsules
Validation Guide: DIR No.: 3035788
Extractable Guide: DIR No.: 2461994

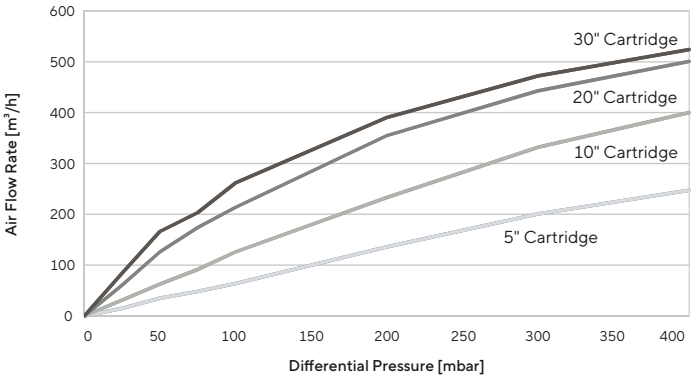
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Performance

Air Flow Rates for Sartofluor® Cartridges GA | Mini Cartridges | Junior | Midicaps® | Capsules

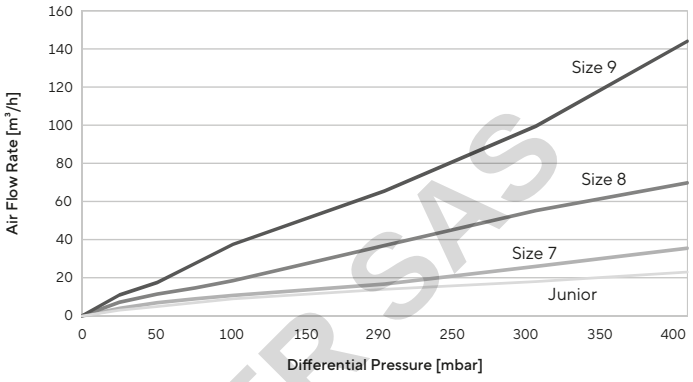
Cartridges GA

Under atmospheric pressure conditions



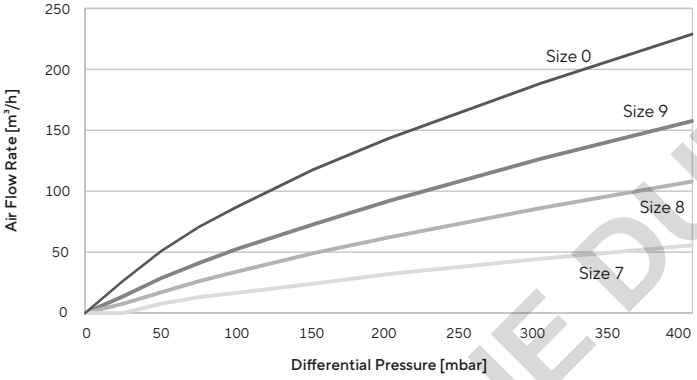
Mini Cartridges

Under atmospheric pressure conditions



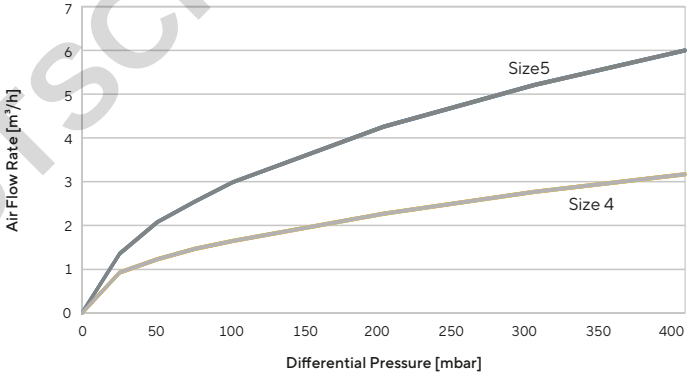
Midicaps®

Valid for SS-Connector



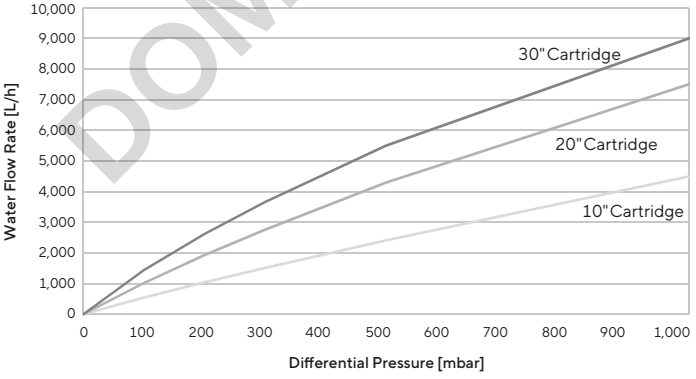
Capsules

Valid for OO-Connector

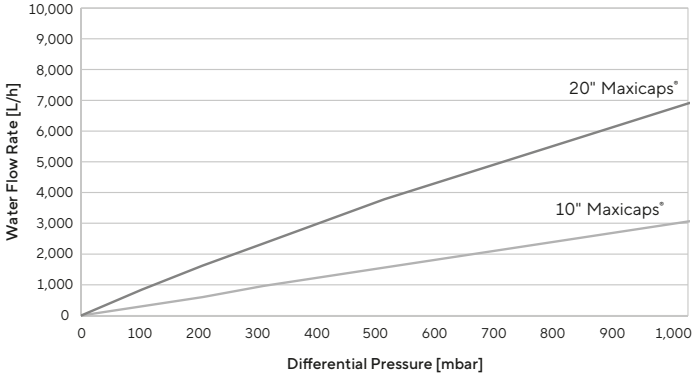


Liquid Flow Rates for Sartofluor® Cartridges LG | Maxicaps®

Cartridges LG



Maxicaps®



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Ordering Information

Cartridges GA



518	25	07	T	■	–	–	GA

Filter Size
0: 0.375 m² | 4.05 ft²
1: 0.75 m² | 8.1 ft²
2: 1.5 m² | 16.1 ft²
3: 2.25 m² | 24.2 m²

Cartridges LG



518	25	07	T	■	–	–	LG

Filter Size
1: 0.5 m² | 5.4 ft²
2: 1.0 m² | 10.8 ft²
3: 1.5 m² | 16.1 m²

Mini Cartridges



518	15	07	T	■	–	–	–	B

Filter Size
7: 0.05 m² | 0.5 ft²
8: 0.1 m² | 1.1 ft²
9: 0.2 m² | 2.2 ft²

Junior



518	14	07	T	7	–	–	–	B

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Maxicaps®



518	73	07	T	■	--	■	■

Filter Size
1: 0.5 m² | 5.4 ft²
2: 1.0 m² | 10.8 ft²
3: 1.5 m² | 16.1 m²

Connector Inlet
S: 1½" Tri-Clamp 50.5 mm

Connector Outlet
S: 1½" Tri-Clamp 50.5 mm

Midicaps®



518	53	07	T	■	-	■	■	--	■

Filter Size
7: 0.05 m² | 0.5 ft²
8: 0.1 m² | 1.1 ft²
9: 0.2 m² | 2.2 ft²
0: 0.45 m² | 4.8 ft²

Connector Inlet
S: 1½" Tri-Clamp 50.5 mm
O: ½" single stepped hose barb

Connector Outlet
S: 1½" Tri-Clamp 50.5 mm
O: ½" single stepped hose barb

Packing Size
A: box of 4 (size 7, 8, 9)
V: box of 2 (size 0)

Capsules



518	13	07	T	■	-	■	■	--	■

Filter Size
4: 0.015 m² | 0.16 ft²
5: 0.03 m² | 0.32 ft²

Connector Inlet
S: ¾" Tri-Clamp 25 mm (size 4)
O: ¼" multiple stepped hose barb (only size 5 with filling bell)

Connector Outlet
S: ¾" Tri-Clamp 25 mm (size 4)
O: ¼" multiple stepped hose barb (only size 5 with filling bell)

Packing Size
B: box of 5 (size 4)
D: box of 10 (size 5)

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Check the availability of your desired configuration with your Sartorius sales representative or online at www.sartorius.com

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