



Sartoguard GF

Membrane Prefiltration Filter Elements

Product Information

Sartoguard GF filter elements are polyethersulfone membrane based prefilters. The membrane double layer is protected by a layer of glass fiber fleece material. They combine the defined retention performance of membrane filters with the high total throughput capacity of depth filter material. Therefore, Sartoguard GF prefilters offering optimal protection of sterile filters and validated bioburden reduction.



Applications

Sartoguard GF filter elements are typically used for prefiltration of:

- Cell Culture Media
- Buffers
- Serum
- Ophthalmics
- Large Volume Parenterals
- Colloid and lipid containing liquids

Efficiency

The glassfiber material provides high particle loading capacity and effective retention of large and small particles as well as excellent turbidity reduction. The heterogeneous double layer PES membranes provide secure and reliable retention needed for critical applications.

Reliable Retention

Sartoguard GF filters are available with 0.1 μm and 0.2 μm nominal retention rating. The 0.1 μm rated filters typically provides a LRV of 6 per cm^2 filtration area for *Brevundimonas Diminuta*, while the 0.2 μm rated filter typically provides a LVR of 6 per cm^2 filtration area for *Serratia Marcescens*.

Flexibility

Sartoguard GF filters are available as cartridges, capsules, MidiCaps[®] and T-Style MaxiCaps[®] providing utmost flexibility for integration into any filtration process independent from the batch size.

Quality & Security

Sartoguard GF filter elements are individually tested for integrity during production. The integrity of the filters can be verified on-side before and after use by a diffusion or bubble-point (0.2 μm) test.

Scalability

Sartoguard GF filter elements are available in a broad range of sizes and formats to provide linear scale-up from R&D to process scale.

Documentation

Sartoguard GF filter elements are designed, developed and manufactured in accordance with an ISO 9001 certified Quality Management System. A Validation Guide is available for compliance with regulatory requirements.

Technical Data

Specifications

Materials	
Prefilter Membrane	PES, asymmetric
Final Membrane	PES, asymmetric
Filter active Fleece	Glass Fiber
Support fleeces	Polypropylene
Core	Polypropylene
End caps	Polypropylene
Housing	Polypropylene
O-Rings	Silicone (optional: EPDM or Fluoroelastomer)

Retention Rates

0.2 µm + 0.1 µm nominally
0.8 µm + 0.2 µm nominally

Available Sizes | Filtration Area

Cartridges | T-Style MaxiCaps®

10"	0.45 m ² 4.8 ft ²
20"	0.9 m ² 9.6 ft ²
30"	1.35 m ² 14.5 ft ²

MidiCaps®

Size 8	0.08 m ² 0.9 ft ²
Size 9	0.15 m ² 1.6 ft ²
Size 0	0.3 m ² 3.2 ft ²

Capsules

Size 4	0.012 m ² 0.13 ft ²
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Available Adapters Cartridges

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

Available Connectors T- Style MaxiCaps®

S: Tri-Clamp 50 mm (1½")
O: ½" single stepped hose barb
Y: 1" single stepped hose barb

Available Connectors MidiCaps®

S: Tri-Clamp 50 mm (1½")
O: ½" single stepped hose barb
F: Tri-Clamp 25 mm (¾")

Available Connectors Capsules

S: Tri-Clamp 25 mm (¾")
O: ¼" multiple stepped hose barb

Operating Parameters

Max. Allowable Differential Pressure	5 bar 72.5 psi at 20°C (Cartridges, MidiCaps®, T-Style MaxiCaps®) 4 bar 58 psi at 20°C (Capsules) 2 bar 29 psi at 80°C (Cartridges) 3 bar 43.5 psi at 50°C (T-Style MaxiCaps®, MidiCaps®) 2 bar 29 psi at 50°C (Capsules)
Max. Allowable Back Pressure	2 bar 29 psi at 20°C (all elements)

Extractables

Sartoguard GF filter elements meet, or exceed the requirements for WFI quality standards set by the current USP after preflushing.

Regulatory Compliance

Individually integrity tested during production

Onside integrity testable by diffusion or bubble-point test

Non pyrogenic according to USP Bacterial Endotoxins

Pass USP Plastic Class VI Test

Non fiber releasing according to 21 CFR

Sterilization

Cartridges

In-Line Steam Sterilization:

134°C, 20 min. at max differential pressure of 0.5 bar | 7.25 psi

or

Autoclaving:

134°C, 2 bar, 30 min

T-Style MaxiCaps® | MidiCaps® | Capsules

Autoclaving:

134°C, 2 bar, 30 min

Only Cartridges can be in-line steam sterilized

Technical References

Validation Guide SPK5792-e

Ordering Information

Type	Pore Size [μm]	Test Pressure [bar psi]	Max. Diffusion [ml min]	Min. Bubble-Point [bar psi]	Pack Size [Pieces]
Cartridges					
5482507G1	0.2	2.0 29	19	2.3 33	1
5482507G2	0.2	2.0 29	38	2.3 33	1
5482507G3	0.2	2.0 29	57	2.3 33	1
5482558M1	0.1	2.5 36	17	n. a.	1
5482558M2	0.1	2.5 36	34	n. a.	1
5482558M3	0.1	2.5 36	51	n. a.	1
T-Style MaxiCaps®					
5488307G1--**	0.2	2.0 29	19	2.3 33	1
5488307G2--**	0.2	2.0 29	38	2.3 33	1
5488307G3--**	0.2	2.0 29	57	2.3 33	1
5488358M1--**	0.1	2.5 36	17	n. a.	1
5488358M2--**	0.1	2.5 36	34	n. a.	1
5488358M3--**	0.1	2.5 36	51	n. a.	1
MidiCaps® Capsules					
5481307G4--**--B	0.2	2.0 29	2	2.3 33	5
5485307G8--**--A	0.2	2.0 29	7	2.3 33	4
5485307G9--**--A	0.2	2.0 29	10	2.3 33	4
5485307G0--**--V	0.2	2.0 29	12	2.3 33	2
5481358M4--**--B	0.1	2.5 36	2	n. a.	5
5485358M8--**--A	0.1	2.5 36	6	n. a.	4
5485358M9--**--A	0.1	2.5 36	9	n. a.	4
5485358M0--**--V	0.1	2.5 36	11	n. a.	2

n. a.: not applicable

** Connector Styles (first code letter represents the inlet, the second the outlet)

Sales and Service Contacts

For further contacts, visit www.sartorius-stedim.com

Europe

Germany

Sartorius Stedim Biotech GmbH
August-Spindler-Strasse 11
37079 Goettingen

Phone +49.551.308.0
Fax +49.551.308.3289

Sartorius Stedim Systems GmbH
Robert-Bosch-Strasse 5 – 7
34302 Guxhagen

Phone +49.5665.407.0
Fax +49.5665.407.2200

France

Sartorius Stedim FMT S.A.S.
ZI des Paluds
Avenue de Jouques – CS 91051
13781 Aubagne Cedex

Phone +33.442.845600
Fax +33.442.845619

Sartorius Stedim France SAS
ZI des Paluds
Avenue de Jouques – CS 71058
13781 Aubagne Cedex

Phone +33.442.845600
Fax +33.442.846545

Austria

Sartorius Stedim Austria GmbH
Modcenterstrasse 22
1030 Vienna

Phone +43.1.7965763.18
Fax +43.1.796576344

Belgium

Sartorius Stedim Belgium N.V.
Leuvensesteenweg, 248/B
1800 Vilvoorde

Phone +32.2.756.06.80
Fax +32.2.756.06.81

Hungary

Sartorius Stedim Hungária Kft.
Kagyló u. 5
2092 Budakeszi

Phone +36.23.457.227
Fax +36.23.457.147

Italy

Sartorius Stedim Italy S.p.A.
Via dell'Antella, 76/A
50012 Antella-Bagno a Ripoli (FI)

Phone +39.055.63.40.41
Fax +39.055.63.40.526

Netherlands

Sartorius Stedim Netherlands B.V.

Phone +31.30.60.25.080
Fax +31.30.60.25.099

filtratie.nederland@sartorius-stedim.com

Poland

Sartorius Stedim Poland Sp. z o.o.
ul. Wrzesinska 70
62-025 Kostrzyn

Phone +48.61.647.38.40
Fax +48.61.879.25.04

Russian Federation

LLC "Sartorius ICR" and LLC "Biohit"
Uralskaya str. 4, Lit. B
199155, Saint-Petersburg

Phone +7.812.327.5.327
Fax +7.812.327.5.323

Spain

Sartorius Stedim Spain, S.A.U.
Avda. de la Industria, 32
Edificio PAYMA
28108 Alcobendas (Madrid)

Phone +34.902.110.935
Fax +34.91.358.96.23

Switzerland

Sartorius Stedim Switzerland AG
Ringstrasse 24 a
8317 Tagelswangen

Phone +41.52.354.36.36
Fax +41.52.354.36.46

U.K.

Sartorius Stedim UK Ltd.
Longmead Business Centre
Blenheim Road, Epsom
Surrey KT19 9 QQ

Phone +44.1372.737159
Fax +44.1372.726171

Ukraine

LLC "Biohit"
Post Box 440 "B"
01001 Kiev, Ukraine

Phone +380.44.411.4918
Fax +380.50.623.3162

Americas

USA

Sartorius Stedim North America Inc.
5 Orville Drive, Suite 200
Bohemia, NY 11716

Toll-Free +1.800.368.7178
Fax +1.631.254.4253

Argentina

Sartorius Argentina S.A.
Int. A. Ávalos 4251
B1605ECS Munro
Buenos Aires

Phone +54.11.4721.0505
Fax +54.11.4762.2333

Brazil

Sartorius do Brasil Ltda
Avenida Senador Vergueiro 2962
São Bernardo do Campo
CEP 09600-000 - SP- Brasil

Phone +55.11.4362.8900
Fax + 55.11.4362.8901

Mexico

Sartorius de México S.A. de C.V.
Circuito Circunvalación Poniente
No. 149
Ciudad Satélite
53100, Estado de México
México

Phone +52.5555.62.1102
Fax +52.5555.62.2942

Asia | Pacific

Australia

Sartorius Stedim Australia Pty. Ltd.
Unit 5, 7-11 Rodeo Drive
Dandenong South Vic 3175

Phone +61.3.8762.1800
Fax +61.3.8762.1828

China

Sartorius Stedim Biotech (Beijing) Co. Ltd.
No. 33 Yu'an Road
Airport Industrial Park Zone B
Shunyi District, Beijing 101300

Phone +86.10.80426516
Fax +86.10.80426580

Sartorius Stedim (Shanghai)
Trading Co. Ltd
3rd Floor, North Wing, Tower 1
No. 4560 Jinke Road
Zhangjiang Hi-Tech Park
Pudong District
Shanghai 201210, China

Phone +86.21.68782300
Fax +86.21.68782332 | 68782882

Sartorius Stedim Biotech (Beijing) Co. Ltd.
Guangzhou Representative Office
Unit K, Building 23
Huihua Commerce & Trade Building
No. 80 Xianlie Middle Road
Guangzhou 510070

Phone +86.20.37618687 | 37618651
Fax +86.20.37619051

India

Sartorius Stedim India Pvt. Ltd.
#69/2-69/3, NH 48, Jakkasandra
Nelamangala Tq
562 123 Bangalore, India

Phone +91.80.4350.5250
Fax +91.80.4350.5253

Japan

Sartorius Stedim Japan K.K.
4th Fl., Daiwa Shinagawa North Bldg.
8-11, Kita-Shinagawa 1-chome
Shinagawa-ku, Tokyo, 140-0001 Japan

Phone +81.3.4331.4300
Fax +81.3.4331.4301

Malaysia

Sartorius Stedim Malaysia Sdn. Bhd.
Lot L3-E-3B, Enterprise 4
Technology Park Malaysia
Bukit Jalil
57000 Kuala Lumpur, Malaysia

Phone +60.3.8996.0622
Fax +60.3.8996.0755

Singapore

Sartorius Stedim Singapore Pte. Ltd.
1 Science Park Road,
The Capricorn, #05-08A,
Singapore Science Park II
Singapore 117528

Phone +65.6872.3966
Fax +65.6778.2494

South Korea

Sartorius Korea Biotech Co., Ltd.
8th Floor, Solid Space B/D,
PanGyoYeok-Ro 220, BunDang-Gu
SeongNam-Si, GyeongGi-Do, 463-400

Phone +82.31.622.5700
Fax +82.31.622.5799



▶ www.sartorius-stedim.com