



Sartoguard PES

Bioburden Retention with Membrane Prefiltration

Product Information

- High total throughput for economic processing
- Onside integrity testable by Diffusion- & Bubble Point Test
- Highly economic sizing for intermediate steps in downstream processing
- Excellent clarification capability and protection of subsequent final Filters or other processing equipment



Bacteria Retention Capability

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

Scalability

Sartoguard PES filter elements are available in a broad range of sizes and formats to provide linear scale-up from R&D to process scale. The wide range of membrane areas from 210 cm^2 to 2.4 m^2 per filter element guarantees greatest flexibility and most economic filter sizing.

Applications

Typical applications of Sartoguard PES filter elements include prefiltration of:

- Cell Culture Media
- Downstream Intermediates (before and after UF | DF and chromatography steps)
- Clarified cell culture harvest
- Buffers
- Aseptically filled Small Volume Parenteral
- Protection of final filters

Technical Data

Available Sizes	Filtration Area	Max. Diffusion [ml/min]		Min. Bubble Point [bar psi]	
		0.1 μm at 1.5 bar 22 psi	0.2 μm at 1.2 bar 17.5 psi	0.1 μm	0.2 μm
Cartridges, MaxiCaps® Gamma MaxiCaps® and T-Style MaxiCaps®					
Size 1 (10")	0.8 m ² 8.6 ft ²	25	18	2.8 40.5	1.8 26
Size 2 (20")	1.6 m ² 17.2 ft ²	50	36	2.8 40.5	1.8 26
Size 3 (30")	2.4 m ² 25.8 ft ²	75	54	2.8 40.5	1.8 26
MidiCaps® Gamma MidiCaps®					
Size 7	0.065 m ² 0.7 ft ²	3	3	2.8 40.5	1.8 26
Size 8	0.13 m ² 1.4 ft ²	6	4	2.8 40.5	1.8 26
Size 9	0.26 m ² 2.8 ft ²	9	6	2.8 40.5	1.8 26
Size 0	0.52 m ² 5.6 ft ²	18	12	2.8 40.5	1.8 26
Capsules Gamma Capsules					
Size 4	0.021 m ² 0.22 ft ²	1.1	1.1	2.8 40.5	1.8 26

Max. Allowable Differential Pressure

Cartridges

5 bar | 72.5 psi at 20°C
2 bar | 29 psi at 80°C

T-Style MaxiCaps®, MaxiCaps® | Gamma MaxiCaps®, MidiCaps® | Gamma MidiCaps®

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

Capsules | Gamma Capsules Size 4

4 bar | 58 psi at 20°C
2 bar | 29 psi at 50°C

Max. Allowable Back Pressure

2 bar | 29 psi at 20°C
(for all elements)

Materials

Prefilter Membrane

Polyethersulfone, asymmetric

Endfilter Membrane

Polyethersulfone, asymmetric

Support Fleece

Polypropylene
(In-Line Steam sterilizable & autoclavable)
Polyester
(γ -irradiatable or γ -irradiatable | autoclavable)

Pore Size Combination

0.8 + 0.1 μm
1.2 + 0.2 μm



Regulatory Compliance

- Each individual element is tested for integrity by Bubble Point and Diffusion test
- Designed, developed and manufactured in accordance with an ISO 9001 certified Quality Management System
- Meet or exceed the requirements for WFI quality standards set by the current USP
- Non pyrogenic according to USP Bacterial Endotoxins
- USP Plastic Class VI Test
- Non-fiber releasing according to 21 CFR

Sterilization

Cartridges

In-Line Steam Sterilization

134 °C, 0.3 bar, 20 min.

Min. 25 Sterilization Cycles

or

Autoclaving

134°C, 2 bar, 30 min

Min. 25 Sterilization Cycles

MaxiCaps®, MidiCaps® & Capsules

Autoclaving

134°C, 2 bar, 30 min

Min. 25 Sterilization Cycles (MidiCaps® & MaxiCaps®)

Min. 5 Sterilization Cycles (Capsules)

Gamma MaxiCaps®, Gamma MidiCaps® & Gamma Capsules

Gamma Irradiation

≤ 50 kGy

1 Sterilization Cycle

T-Style MaxiCaps®

Autoclaving

134°C, 2 bar, 30 min

Min. 5 Sterilization Cycles

or

Gamma Irradiation

≤ 50 kGy

1 Sterilization Cycle

Technical References

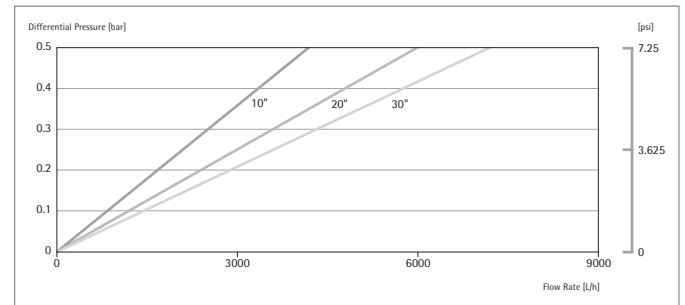
Validation Guide

SPK5782-e

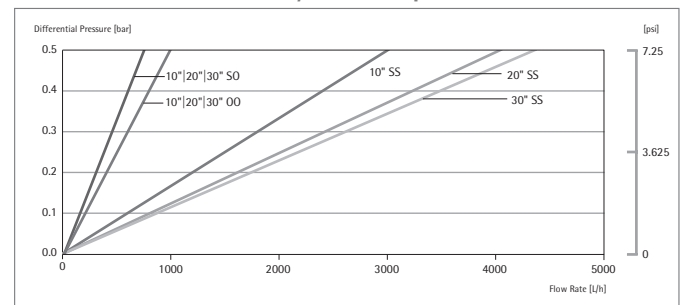
Performance

Sartoguard PES 0.2 µm Nominally

Water Flow Rates for Standard Cartridges



Water Flow Rates for T-Style MaxiCaps®



Ordering Information



Cartridge

547	25			
Retention Rates	Pore Size Filter	Filter Size		
58: 0.1 µm 07: 0.2 µm	G: 0.8 µm F: 1.2 µm	1: 0.8 m ² 8.6 ft ² (10") 2: 1.6 m ² 17.2 ft ² (20") 3: 2.4 m ² 25.8 ft ² (30")		



T-Style MaxiCaps®

547	83				G-		
Retention Rates	Pore Size Filter	Filter Size		Sterilization	Connector Inlet	Connector Outlet	
58: 0.1 µm 07: 0.2 µm	G: 0.8 µm F: 1.2 µm	1: 0.8 m ² 8.6 ft ² (10") 2: 1.6 m ² 17.2 ft ² (20") 3: 2.4 m ² 25.8 ft ² (30")	G-: γ-irradiatable and autoclavable	S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb	S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb		



MaxiCaps® | Gamma MaxiCaps®

547	73						
Retention Rates	Pore Size Filter	Filter Size		Sterilization	Connector Inlet	Connector Outlet	
58: 0.1 µm 07: 0.2 µm	G: 0.8 µm F: 1.2 µm	1: 0.8 m ² 8.6 ft ² (10") 2: 1.6 m ² 17.2 ft ² (20") 3: 2.4 m ² 25.8 ft ² (30")	G-: γ-irradiatable --: autoclavable	S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb	S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb		



MidiCaps® | Gamma MidiCaps®

547	53								
Retention Rates	Pore Size Filter	Filter Size		Sterilization	Connector Inlet	Connector Outlet	Packing Size		
58: 0.1 µm 07: 0.2 µm	G: 0.8 µm F: 1.2 µm	7: 0.065 m ² 0.7 ft ² 8: 0.13 m ² 1.4 ft ² 9: 0.26 m ² 2.8 ft ² 0: 0.52 m ² 5.6 ft ²	G-: γ-irradiatable --: autoclavable	S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb	S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb	A: box of 4 (size 7, 8, 9) V: box of 2 (size 0)			



Capsules | Gamma Capsules

547	13								
Retention Rates	Pore Size Filter	Sterilization	Connector Inlet	Connector Outlet	Packing Size				
58: 0.1 µm 07: 0.2 µm	G: 0.8 µm F: 1.2 µm	G-: γ-irradiatable --: autoclavable	S: ¾" Tri-Clamp 25 mm O: ¼" multiple stepped hose barb	S: ¾" Tri-Clamp 25 mm O: ¼" multiple stepped hose barb	B: box of 5				

Check the availability of your desired configuration with your Sartorius sales representative or online at:



www.sartorius-stedim.com

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