

Sartopore[®] 2 XLG

Sterilizing-Grade Filter Elements



Product Information

- Outstanding capacity and flow performance
- Lowest filter consumption for filtration of cell culture media
- Highly economic sizing for intermediate steps in downstream processing
- Optimization of conventional and single-use processes

Reducing 50 – 90% of Filtration Costs

Sartopore[®] 2 XLG uses a coarser pre-filter layer (0.8 µm) in front of the sterilizing-grade rated final membrane (0.2 µm). The coarser pre-filter layer avoids early blocking in many biological liquids. The enhanced filtration capacity can reduce filtration costs by 50 – 90% for many processes.

Scalability

Sartopore® 2 XLG 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 cm² to 2.4 m² per filter element guarantees greatest flexibility and economic filter sizing.

Applications

- Filtration of cell culture media such as:
 - Plant peptone or yeast supplemented cell culture media
 - Serum containing cell culture media
 - Other cell culture media used in biotech manufacturing
- Post cell harvest filtration
- Downstream intermediates
(before and after UF | DF and chromatography steps)

Services

Sartorius Confidence® Validation Services is the perfect complement to Sartopore® 2 XLG filters.

Our services provide

- Extractables and leachables services
- Microbiological testing
- Physicochemical testing

in compliance with regulatory requirements. Our local teams of validation experts support you with our tailored and consultative approach to determine the most cost-effective solution and give you the confidence you need to succeed.

Technical Specifications

Available Sizes	Filtration Area	Max. Diffusion at 2.5 bar 36 psi [ml/min]	Min. Bubble Point [bar psi]
Cartridges, T-Style Maxicaps®, Maxicaps® Gamma Maxicaps®			
Size 1	0.8 m ² 8.6 ft ²	23	3.2 46
Size 2	1.6 m ² 17.2 ft ²	46	3.2 46
Size 3	2.4 m ² 25.8 ft ²	69	3.2 46
Midicaps® Gamma Midicaps®			
Size 7	0.065 m ² 0.7 ft ²	5	3.2 46
Size 8	0.13 m ² 1.4 ft ²	6	3.2 46
Size 9	0.26 m ² 2.8 ft ²	9	3.2 46
Size 0	0.52 m ² 5.6 ft ²	18	3.2 46
Capsules Gamma Capsules			
Size 4	0.021 m ² 0.22 ft ²	1.1	3.2 46

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

Materials

Prefilter Membrane

Polyethersulfone,
asymmetric

Endfilter Membrane

Polyethersulfone,
asymmetric

Support Fleece

Polypropylene (In-line steam sterilizable & autoclavable)
Polyester (Y-irradiatable or γ -irradiatable | autoclavable)

Core

Polypropylene

End Caps

Polypropylene

Capsule Housing

Polypropylene

O-Ring

Silicone
(other materials on request)

Filling Bell

Polycarbonate

Max. Allowable Back Pressure

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

Pore Size Combination

0.8 μm + 0.2 μm

Regulatory Compliance

- For release, each individual element is tested for integrity by bubble point and diffusion test
- 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
- 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
Max. 134 °C, 0.3 bar, 20 min.
Min. 25 Sterilization Cycles

or

Autoclaving

Max. 134°C, 2 bar, 30 min
Min. 25 Sterilization Cycles

Maxicaps®, Midicaps® & Capsules

Autoclaving
Max. 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®

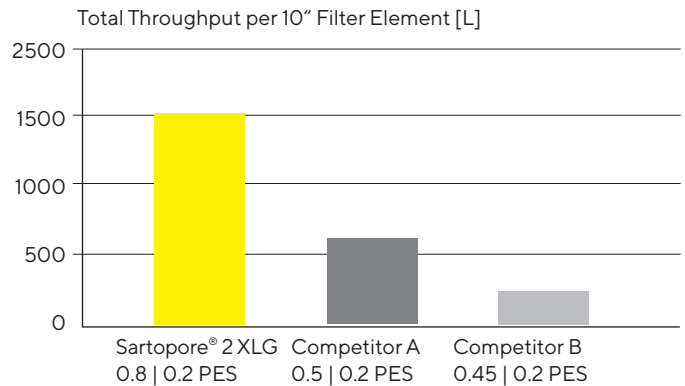
Autoclaving
Max. 134°C, 2 bar, 30 min
Min. 5 Sterilization Cycles

or

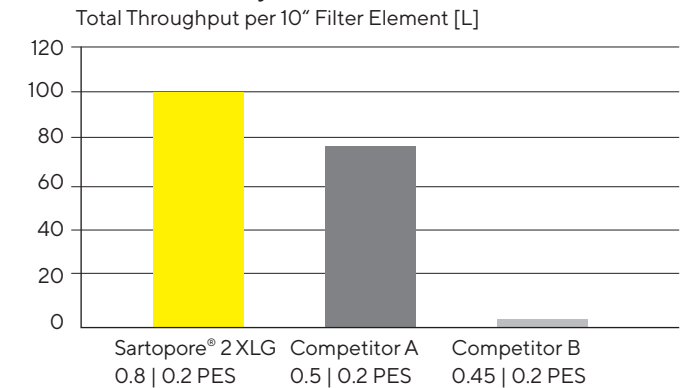
Gamma Irradiation
≤ 50 kGy
1 Sterilization Cycle

Performance

Soy Peptone Supplemented Cell Culture Media



Monoclonal Antibody Pool¹



¹Antibody Concentration: 47.5 mg/ml

Technical References

Validation Guide 2665242
Extractables Guide SPK5775-e

Ordering Information



Cartridge

544 25 07 G ■

Adapter

25: 2 flange bayonet adapter with 226 double o-ring

Filter Size

1: 0.8 m² | 8.6 ft² (10")
 2: 1.6 m² | 17.2 ft² (20")
 3: 2.4 m² | 25.8 ft² (30")

(Standard with silicone o-ring optional with EPDM or Fluoroelastomer o-ring).



T-Style Maxicaps®

544 83 07 G ■ G- ■ ■

Filter Size

1: 0.8 m² | 8.6 ft² (10")
 2: 1.6 m² | 17.2 ft² (20")
 3: 2.4 m² | 25.8 ft² (30")

Sterilization

G-: γ-irradiatable and autoclavable

Connector Inlet

S: 1½" tri-clamp 50.5 mm
 O: ½" single stepped hose barb
 Y: 1" single stepped hose barb

Connector Outlet

S: 1½" tri-clamp 50.5 mm
 O: ½" single stepped hose barb
 Y: 1" single stepped hose barb



Maxicaps® | Gamma Maxicaps®

544 73 07 G ■ ■ ■ ■

Filter Size

1: 0.8 m² | 8.6 ft² (10")
 2: 1.6 m² | 17.2 ft² (20")
 3: 2.4 m² | 25.8 ft² (30")

Sterilization

G-: γ-irradiatable
 --: autoclavable

Connector Inlet

S: 1½" tri-clamp 50.5 mm
 O: ½" single stepped hose barb
 F: ¾" tri-clamp 25 mm

Connector Outlet

S: 1½" tri-clamp 50.5 mm
 O: ½" single stepped hose barb
 F: ¾" tri-clamp 25 mm

(Optional with vent valve design for connection of integrity tester. Example: 5447307G1--SOIT)



Midicaps® | Gamma Midicaps®

544 53 07 G ■ ■ ■ ■ -- ■

Filter Size

7: 0.065 m² | 0.7 ft²
 8: 0.13 m² | 1.4 ft²
 9: 0.26 m² | 2.8 ft²
 0: 0.52 m² | 5.6 ft²

Sterilization

G-: γ-irradiatable
 --: autoclavable

Connector Inlet

S: 1½" tri-clamp 50.5 mm
 O: ½" single stepped hose barb
 F: ¾" tri-clamp 25 mm
 H: ¼" multiple stepped hose barb (only size 7 with filling bell)

Connector Outlet

S: 1½" tri-clamp 50.5 mm
 O: ½" single stepped hose barb
 F: ¾" tri-clamp 25 mm
 H: ¼" multiple stepped hose barb (only size 7 with filling bell)

Packing Size

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



Capsules | Gamma Capsules

544 13 07 G 4 ■ ■ ■ -- B

Filter Size

4: 0.021 m² | 0.22 ft²

Sterilization

G-: γ-irradiatable
 --: autoclavable

Connector Inlet

S: ¾" tri-clamp 25 mm
 O: ¼" multiple stepped hose barb

Connector Outlet

S: ¾" tri-clamp 25 mm
 O: ¼" single stepped hose barb

Packing Size

B: box of 5

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