

# Sartobran® P 0.45 µm

## Bioburden Reduction and Particle Retention Filters

### Product Information

- Ideally suited for bioburden and particle reduction, in particular in vaccine and blood & plasma processes
- Highest product yield due to extremely low unspecific adsorption
- First choice for processing high-value biological solutions



### Outstanding Bioburden Reduction

Sartobran® P 0.45 µm rated filter elements are ideally suited for bioburden and defined particle reduction from biopharmaceutical solutions. They can be used for protection of sterilizing-grade membrane filters or subsequent downstream processing equipment in biotech production processes.

### Highest Product Yield

Sartobran® P's cellulose acetate membrane provides the lowest unspecific adsorption of any membrane material available, ensuring highest product and excipient recovery rates.

## Flexibility & Compatibility

Sartobran® P 0.45 µm filters are available with various filtration areas from 0.03 m<sup>2</sup> | 0.32 ft<sup>2</sup> up to 1.8 m<sup>2</sup> | 19.4 ft<sup>2</sup> for simple linear scale-up and process flexibility. Sartobran® P filter elements can be used over pH range 4-8 thereby covering the vast majority of biopharmaceutical applications.

## Applications

- Coagulation Factors, Albumin, IgG
- Bacterial & Viral Vaccines
- Bioprocessed pharmaceuticals
- Intermediate and purified protein solutions
- Biological fluids
- Fluids containing preservatives

## Technical Data

Available Sizes	Filtration Area	Max. Diffusion at 1.5 bar   22 psi [ml/min]	Min. Bubble Point [bar   psi]
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### Cartridges | MaxiCaps®

Size 0.5 (Only Cartridges)	0.3 m <sup>2</sup>   3.2 ft <sup>2</sup>	10	2.0   29
Size 1	0.6 m <sup>2</sup>   6.5 ft <sup>2</sup>	15	2.0   29
Size 2	1.2 m <sup>2</sup>   12.9 ft <sup>2</sup>	30	2.0   29
Size 3	1.8 m <sup>2</sup>   19.4 ft <sup>2</sup>	45	2.0   29

### Mini Cartridges | MidiCaps®

Size 7	0.05 m <sup>2</sup>   0.54 ft <sup>2</sup>	3	2.0   29
Size 8	0.1 m <sup>2</sup>   1.1 ft <sup>2</sup>	4	2.0   29
Size 9	0.2 m <sup>2</sup>   2.2 ft <sup>2</sup>	5	2.0   29
Size 0 (Only MidiCaps®)	0.45 m <sup>2</sup>   4.8 ft <sup>2</sup>	10	2.0   29

### Capsules

Size 5	0.03 m <sup>2</sup>   0.32 ft <sup>2</sup>	2	2.0   29
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## Max. Allowable Differential Pressure

### Cartridges | Mini Cartridges

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

### MaxiCaps® | MidiCaps®

5 bar | 72.5 psi at 20°C  
3 bar | 43.5 psi at 50°C (only MaxiCaps®)

### Capsules

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

Cellulose Acetate

### Endfilter Membrane

Cellulose Acetate

### Support Fleece

Polypropylene

### Core

Polypropylene

### End Caps

Polypropylene

### Capsule Housing

Polypropylene

### O-Ring

Silicone

### Filling Bell

Polycarbonate

## Pore Size Combination

0.65 µm + 0.45 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 | Mini 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

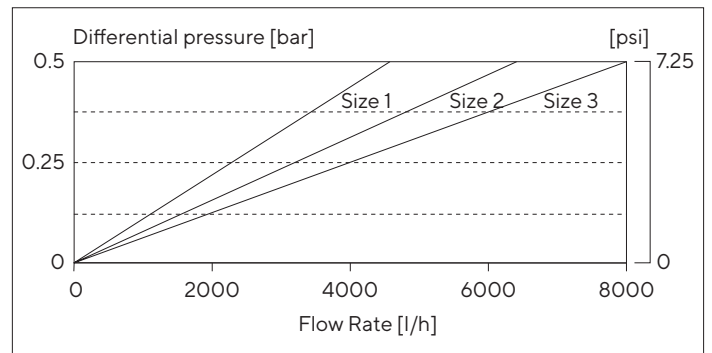
- Autoclaving  
Max. 134°C, 2 bar, 30 min  
Min. 25 Sterilization Cycles (MaxiCaps® | MidiCaps®)  
Min. 3 Sterilization Cycles (Capsules)

## Technical References

Validation Guide	SPK5726-e
Extractables Guide	100002449247

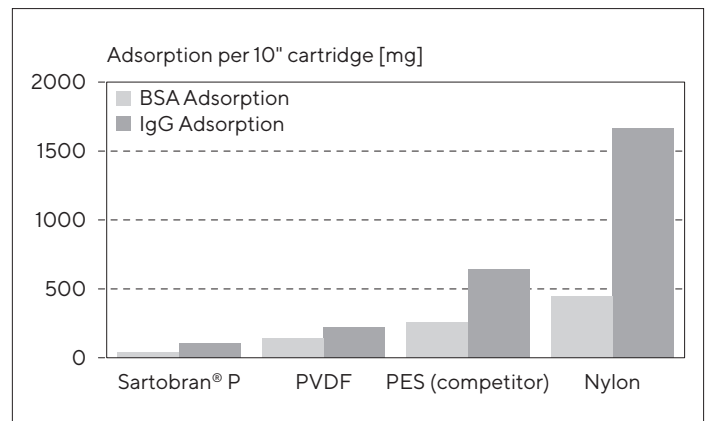
## Performance

### Water Flow Rates for MaxiCaps®



Standardized at 20°C

### Protein Binding



# Ordering Information



## Mini Cartridge

523 ■ 06 D ■ -- -- -- B

### Adapter

15: Bayonet adapter with O-ring  
18: Plug Adapter with double O-ring  
(Standard with Silicone O-ring)

### Filter Size

7: 0.05 m<sup>2</sup> | 0.5 ft<sup>2</sup>  
8: 0.1 m<sup>2</sup> | 1.1 ft<sup>2</sup>  
9: 0.2 m<sup>2</sup> | 2.2 ft<sup>2</sup>

### Packing Size

B: box of 5



## Cartridge

523 ■ 06 D ■ -- -- P

### Adapter

21: double open end with flat gaskets  
25: 2 Flange Bayonet adapter with 226 double o-ring  
27: Bayonet adapter with 222 double o-ring  
28: 3 Flange Bayonet adapter with 222 double o-ring  
(Standard with Silicone O-ring)

### Filter Size

0: 0.3 m<sup>2</sup> | 3.2 ft<sup>2</sup> (5")  
1: 0.6 m<sup>2</sup> | 6.5 ft<sup>2</sup> (10")  
2: 1.2 m<sup>2</sup> | 12.9 ft<sup>2</sup> (20")  
3: 1.8 m<sup>2</sup> | 19.4 ft<sup>2</sup> (30")



## MaxiCaps®

523 73 06 D ■ -- ■ ■

### Filter Size

1: 0.6 m<sup>2</sup> | 6.5 ft<sup>2</sup> (10")  
2: 1.2 m<sup>2</sup> | 12.9 ft<sup>2</sup> (20")  
3: 1.8 m<sup>2</sup> | 19.4 ft<sup>2</sup> (30")

### Sterilization

--: autoclavable

### Connector Inlet

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

### Connector Outlet

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



## MidiCaps®

523 53 06 D ■ -- ■ ■ -- ■

### Filter Size

7: 0.05 m<sup>2</sup> | 0.5 ft<sup>2</sup>  
8: 0.1 m<sup>2</sup> | 1.1 ft<sup>2</sup>  
9: 0.2 m<sup>2</sup> | 2.2 ft<sup>2</sup>  
0: 0.45 m<sup>2</sup> | 4.8 ft<sup>2</sup>

### Sterilization

--: autoclavable

### Connector Inlet

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

### Connector Outlet

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

### Packing Size

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

## Capsules

523 13 06 D ■ -- ■ ■ -- B

### Filter Size

5: 0.03 m<sup>2</sup> | 0.32 ft<sup>2</sup>

### Sterilization

--: autoclavable

### Connector Inlet

O: ¼" multiple stepped  
hose barb

### Connector Outlet

O: ¼" multiple stepped  
hose barb  
(with filling bell)

### Packing Size

B: box of 5


Check the availability of your desired configuration with your Sartorius sales representative or online at [www.sartorius.com](http://www.sartorius.com)

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