

# Sartopure<sup>®</sup> PP3

## Test Filter Elements

The Sartopure<sup>®</sup> PP3 prefilter platform is the result of decades of experience in prefiltration in pharmaceutical and biopharmaceutical processes. This development has led to a polypropylene fleece-based prefilter offering both, highest total throughput and protective abilities. Its outstanding filtration ability results in a significant reduction of the required filtration area, essentially reducing filter consumption and the overall cost of prefiltration. Sartopure<sup>®</sup> PP3 is the ideal choice for particle retention and protection of downstream equipment for all product contact applications.



## Product Information

- High performance polypropylene fleece prefilters for particle reduction
- Advanced fleece materials with retention ratings from 0.45 – 100 µm
- Broad chemical compatibility with low extractable profile

## Robust Processes

The Sartopure® PP3 series provides exceptional robustness to prefiltration applications based on the unique retention performance of its fleece material. The fleece retains particles with high efficiency even under varying process conditions, ensuring secure and reliable operation.

## High Product Yield

The all-polypropylene design of Sartopure® PP3 provides low unspecific binding for highest product yield during your filtration processes.

## High Flexibility

Sartopure® PP3 filter elements are available with a broad variety of retention ratings from 0.45 µm up to 100 µm making them ideally suited for numerous prefiltration applications.

## Broad Compatibility and Low Extractables

Sartopure® PP3 filter elements consist entirely of polypropylene, which leads to broad chemical compatibility with a large number of solvents, acids and bases. Moreover the all-polypropylene design guarantees a small extractable profile.

## Cost-Saving

The outstanding throughput performance and retention capability of Sartopure® PP3 enables downsizing of the required filtration area for pre- and final sterilizing grade filtration steps, resulting in significant cost savings.

## Applications

- Protection of downstream equipment
- Clarification in vaccine production
- Ophthalmics
- Large volume parenterals
- Antibiotics & solvents
- Food & beverage

For food & beverage applications please refer to our dedicated F&B Sartopure® PP3 datasheet.

# Technical Data

Available Sizes		Filtration Area [m <sup>2</sup>   ft <sup>2</sup> ]		
Cartridges   T-Style Maxicaps®   Maxicaps®	Retention Rate	0.45 µm	0.65 µm – 3 µm	5 µm – 100 µm
Size 1		0.4   4.3	0.45   4.8	0.65   7.0
Size 2		0.8   8.6	0.9   9.7	1.3   14
Size 3		1.2   12.9	1.35   14.5	1.95   21

Midicaps®   Mini Cartridges	Retention Rate	0.45 µm	0.65 µm – 3 µm	5 µm – 100 µm
Size 7		0.04   0.43	0.05   0.54	0.065   0.7
Size 8		0.08   0.86	0.09   0.97	0.12   1.3
Size 9		0.13   1.4	0.15   1.6	0.21   2.3
Size 0*		0.26   2.8	0.30   3.2	0.42   4.5

Capsules	Retention Rate	0.45 µm	0.65 µm – 1.2 µm	3 µm – 100 µm
Size 4		0.012   0.13	0.013   0.14	0.018   0.19
Size 5		0.024   0.26	0.026   0.28	0.036   0.39

\*only for Midicaps®

## Max. Allowable Differential Pressure

### Cartridges | Midicaps®

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

### T-Style Maxicaps® | Maxicaps®

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

### Capsules

4 bar | 58 psi at 20°C  
2 bar | 29 psi at 80°C

## Max. Allowable Back Pressure

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

## Max. Operating Pressure

### Cartridges | T-Style Maxicaps® | Maxicaps® | Midicaps® | Mini Cartridges

5 bar | 72.5 psi at 20°C

### Capsules

4 bar | 58 psi at 20°C

## Materials

### Filter Membrane

Polypropylene fleece

### End Caps

Polypropylene

### Support Fleece

Polypropylene

### Housing

Polypropylene

### Core

Polypropylene

### O-Rings

Silicone  
(optional: EPDM  
or Fluoroelastomer)

## Technical References

Validation Guide

85037-544-50, SPK5805-e

Extractables Analysis

EA 0.45 85037-544-51,  
SPK5806-e

EA 0.65 -100 58037-544-52,  
SPK5807-e

## Sterilization

### Cartridges

#### In-Line Steam Sterilization

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

Min. 25 Sterilization Cycles  
or

#### Autoclaving

134°C, 2 bar, 30 min

Min. 25 Sterilization Cycles

## Available Retention Rates

0.45 µm, 0.65 µm, 1.2 µm, 3 µm, 5 µm,  
8 µm, 20 µm, 50 µm, 100 µm

## Regulatory Compliance

- 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
- Pass USP Plastic Class VI Test
- Non-fiber releasing according to 21 CFR

### T-Style Maxicaps® | Maxicaps® | Midicaps® |

#### Capsules Autoclaving

134°C, 2 bar, 30 min

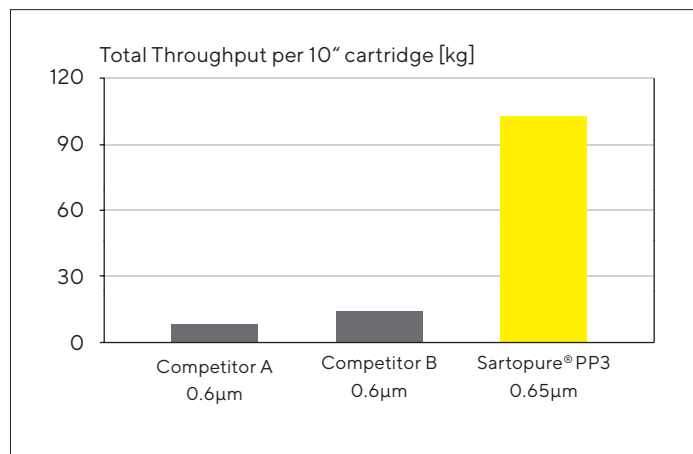
Min. 25 Sterilization Cycles

Note: T-Style Maxicaps®, Maxicaps®, Midicaps® and Capsules cannot be in-line steam sterilized

## Performance

### Standard Test Media 3-fold Concentrated

#### Total Throughput Comparison



# Ordering Information



## Cartridge

505	25	.	P	.
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Retention Rate	Filter Size
06: 0.45 $\mu\text{m}$	1: 0.4 m <sup>2</sup>   4.3 ft <sup>2</sup> (10")
	2: 0.8 m <sup>2</sup>   8.6 ft <sup>2</sup> (20")
	3: 1.2 m <sup>2</sup>   12.9 ft <sup>2</sup> (30")
05: 0.65 $\mu\text{m}$	1: 0.45 m <sup>2</sup>   4.8 ft <sup>2</sup> (10")
03: 1.2 $\mu\text{m}$	2: 0.9 m <sup>2</sup>   9.7 ft <sup>2</sup> (20")
02: 3 $\mu\text{m}$	3: 1.35 m <sup>2</sup>   14.5 ft <sup>2</sup> (30")
42: 5 $\mu\text{m}$	1: 0.65 m <sup>2</sup>   7 ft <sup>2</sup> (10")
01: 8 $\mu\text{m}$	2: 1.3 m <sup>2</sup>   14 ft <sup>2</sup> (20")
20: 20 $\mu\text{m}$	3: 1.95 m <sup>2</sup>   21 ft <sup>2</sup> (30")
50: 50 $\mu\text{m}$	
98: 100 $\mu\text{m}$	



## T-Style Maxicaps® | Maxicaps®

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Filter Design	Retention Rate	Filter Size	Connector Inlet	Connector Outlet
73: Maxicaps®	06: 0.45 $\mu\text{m}$	1: 0.4 m <sup>2</sup>   4.3 ft <sup>2</sup> (10")	S: 1½" Tri-Clamp 50 mm	S: 1½" Tri-Clamp 50 mm
83: T-Style Maxicaps®		2: 0.8 m <sup>2</sup>   8.6 ft <sup>2</sup> (20")	O: ½" single stepped hose barb	O: ½" single stepped hose barb
		3: 1.2 m <sup>2</sup>   12.9 ft <sup>2</sup> (30")		
	05: 0.65 $\mu\text{m}$	1: 0.45 m <sup>2</sup>   4.8 ft <sup>2</sup> (10")		
	03: 1.2 $\mu\text{m}$	2: 0.9 m <sup>2</sup>   9.7 ft <sup>2</sup> (20")		
	02: 3 $\mu\text{m}$	3: 1.35 m <sup>2</sup>   14.5 ft <sup>2</sup> (30")		
	42: 5 $\mu\text{m}$	1: 0.65 m <sup>2</sup>   7 ft <sup>2</sup> (10")		
	01: 8 $\mu\text{m}$	2: 1.3 m <sup>2</sup>   14 ft <sup>2</sup> (20")		
	20: 20 $\mu\text{m}$	3: 1.95 m <sup>2</sup>   21 ft <sup>2</sup> (30")		
	50: 50 $\mu\text{m}$			
	98: 100 $\mu\text{m}$			



## Midicaps®

505	53		P		--			--	
<b>Retention Rate</b> 06: 0.45 µm	<b>Filter Size</b> 7: 0.04 m <sup>2</sup>   0.43 ft <sup>2</sup> 8: 0.08 m <sup>2</sup>   0.86 ft <sup>2</sup> 9: 0.13 m <sup>2</sup>   1.4 ft <sup>2</sup> 0: 0.26 m <sup>2</sup>   1.8 ft <sup>2</sup>	<b>Connector Inlet</b> S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb		<b>Connector Outlet</b> S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb		<b>Packing Size</b> A: box of 4 (size 7,8,9) V: box of 2 (size 0)			
05: 0.65 µm 03: 1.2 µm 02: 3 µm	7: 0.05 m <sup>2</sup>   0.54 ft <sup>2</sup> 8: 0.09 m <sup>2</sup>   0.97 ft <sup>2</sup> 9: 0.15 m <sup>2</sup>   1.61 ft <sup>2</sup> 0: 0.30 m <sup>2</sup>   3.23 ft <sup>2</sup>								
42: 5 µm 01: 8 µm 20: 20 µm 50: 50 µm 98: 100 µm	7: 0.065 m <sup>2</sup>   0.7 ft <sup>2</sup> 8: 0.12 m <sup>2</sup>   1.3 ft <sup>2</sup> 9: 0.21 m <sup>2</sup>   2.26 ft <sup>2</sup> 0: 0.42 m <sup>2</sup>   4.52 ft <sup>2</sup>								



## Mini Cartridge

505	15		P		--			--	
<b>Retention Rate</b> 05: 0.65 µm 03: 1.25 µm 02: 3 µm	<b>Filter Size</b> 7: 0.05 m <sup>2</sup>   0.54 ft <sup>2</sup> 8: 0.09 m <sup>2</sup>   0.97 ft <sup>2</sup> 9: 0.15 m <sup>2</sup>   1.61 ft <sup>2</sup>	<b>Connector Inlet</b> S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb		<b>Connector Outlet</b> S: 1½" Tri-Clamp 50 mm O: ½" single stepped hose barb		<b>Packing Size</b> A: box of 4 (size 7,8,9) V: box of 2 (size 0)			
42: 5 µm 01: 8 µm 20: 20 µm 50: 50 µm 98: 100 µm	7: 0.065 m <sup>2</sup>   0.7 ft <sup>2</sup> 8: 0.12 m <sup>2</sup>   1.3 ft <sup>2</sup> 9: 0.21 m <sup>2</sup>   2.26 ft <sup>2</sup>								



## Capsules

505	13		P		--			--	B
<b>Retention Rate</b> 06: 0.45 µm	<b>Filter Size</b> 4: 0.012 m <sup>2</sup>   0.13 ft <sup>2</sup> 5: 0.024 m <sup>2</sup>   0.26 ft <sup>2</sup>	<b>Connector Inlet</b> O: ¼" multiple stepped hose barb		<b>Connector Outlet</b> O: ¼" multiple stepped hose barb		<b>Packing Size</b> B: box of 5			
05: 0.65 µm 03: 1.2 µm	4: 0.013 m <sup>2</sup>   0.14 ft <sup>2</sup> 5: 0.026 m <sup>2</sup>   0.28 ft <sup>2</sup>								
02: 3 µm 42: 5 µm 01: 8 µm 20: 20 µm 50: 50 µm 98: 100 µm	4: 0.018 m <sup>2</sup>   0.19 ft <sup>2</sup> 5: 0.036 m <sup>2</sup>   0.39 ft <sup>2</sup>								




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