



Sartopure® PP3

Particle Reduction Filter Elements
for food and beverage applications

Product Information

Sartopure® PP3 filter elements are high performance polypropylene fleece based pre-filters that improve your product quality. Advanced fleece materials and composition not only extend service life of your downstream membrane but also reduce filter consumption in total.



The Sartopure® PP3 polypropylene fleece based pre-filter platform is the result of decades of experience in pre-filtration. This development has led to a filter with an uncompromising combination of highest total throughput and protective abilities. The outstanding filtration ability allows for a significant reduction in filtration area, a reduction in product contact with the filter, and a higher product yield, essentially reducing filter consumption and the overall cost for pre-filtration. Sartopure® PP3 the ideal choice for particle retention, clarification and protection of final membrane for all application in the food and beverage market.

Robust processes

The Sartopure® PP3 series provides highest robustness in pre-filtration applications based on the unique retention performance of the fleece materials. They retain particles with highest efficiency even under varying process conditions. This assures secure and reliable operation.

Respect of your beverage characteristic

The all polypropylene construction of Sartopure® PP3 provides very low adsorption assuring the high respect of your wine, beer aroma and taste.

High Flexibility

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

Broad Compatibility and Low Extractables

Sartopure® PP3 filter elements are completely made from polypropylene. This assures a broad chemical compatibility with a large number of solvents, acids and bases. Polypropylene is a highly chemically resistant material, enabling the Sartopure® PP3 to be chemically regenerated (pH 1 – 14) The all polypropylene construction guarantees a small extractable footprint.

Applications

- Clarification and retention of particles and colloids in water
- Clarification of beer downstream of diatomaceous earth filters and | or following PVPP stabilization
- Clarification of fruit juice
- Clarification and fine particles retention of wine and spirits
- Protection of sterile filtration membrane as Aquasart®, Aquasart® Plus, Sartocool® and Vinosart® ...

Cost Saving

The high performance polypropylene fleeces show significantly increased total throughput performance and outstanding protective effectiveness. This allows downsizing of the required filtration area for pre- and final sterilizing grade filtration steps, resulting in significant cost savings.

Documentation

Sartopure® PP3 filter elements are designed, developed and manufactured in accordance with a ISO 9001 certified Quality Management System. A Validation Guide and an Extractables Guide are available for compliance with regulatory requirements.

All the raw materials used to produce the Sartopure® cartridge comply with the European Union Regulation (EC) No. 1935/2004 as well as the Regulation (EU) No. 10/2011 concerning plastic materials and articles intended to come into contact with foodstuffs.

These guidelines for plastics allow the use in food and beverage applications.

All materials used meet the requirements of the FDA.

Technical Data

Available Sizes		Filtration Area [m ² ft ²]		
Cartridges T-Style MaxiCaps® In-line 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® | In-line 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

Materials

Filter Membrane

Polypropylene fleece

End Caps

Polypropylene

Support Fleece

Polypropylene

Housing

Polypropylene

Core

Polypropylene

O-Rings

Silicone (optional EPDM or Fluoroelastomer)

Max. Allowable Back Pressure

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

Max. Operating Pressure

Cartridges | T-Style MaxiCaps® | In-line MaxiCaps® |
MidiCaps® | Mini Cartridges
5 bar | 72.5 psi at 20°C

Capsules

4 bar | 58 psi at 20°C

Available Retention Rates

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

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

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
- 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
Min. 25 Sterilization Cycles

or

Autoclaving

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

Other sterilization cycles

In-line steam sterilization 110°C, 30 minutes, ΔP max 0.5 bar
In-line hot water sterilization 85–95°C, 30 min, ΔP max 0.5 bar
In-line sterilization: minimum 100 cycles"

T-Style MaxiCaps® | In-line MaxiCaps® | MidiCaps® | Capsules

Autoclaving

134°C, 2 bar, 30 min

Min. 5 Sterilization Cycles

(T- Style MaxiCaps® | In-line MaxiCaps®)

Min. 25 Sterilization Cycles

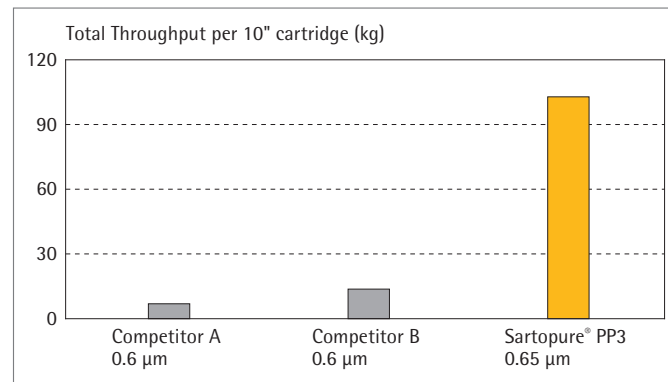
(MidiCaps® | Capsules)

Note: T-Style MaxiCaps®, In-line 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	
Pore Size		Filter Size		
06: 0.45 μm	1: 0.4 m ² 4.3 ft ² (10")			2: 0.8 m ² 8.6 ft ² (20")
	3: 1.2 m ² 12.9 ft ² (30")			
05: 0.65 μm	1: 0.45 m ² 4.8 ft ² (10")			2: 0.9 m ² 9.7 ft ² (20")
03: 1.2 μm	3: 1.35 m ² 14.5 ft ² (30")			
02: 3 μm	1: 0.65 m ² 7 ft ² (10")			2: 1.3 m ² 14 ft ² (20")
42: 5 μm	3: 1.95 m ² 21 ft ² (30")			
01: 8 μm				
20: 20 μm				
50: 50 μm				
98: 100 μm				



T-Style MaxiCaps® | In-line MaxiCaps®

505			P		--		←		
Filter Design		Pore Size		Filter Size		Connector Inlet		Connector Outlet	
73: In-line MaxiCaps®	83: T-Style MaxiCaps®	06: 0.45 μm	1: 0.4 m ² 4.3 ft ² (10")		2: 0.8 m ² 8.6 ft ² (20")		S: 1½" Tri-Clamp 50 mm		S: 1½" Tri-Clamp 50 mm
			3: 1.2 m ² 12.9 ft ² (30")				O: ½" single stepped hose barb		O: ½" single stepped hose barb
		05: 0.65 μm	1: 0.45 m ² 4.8 ft ² (10")		2: 0.9 m ² 9.7 ft ² (20")				
		03: 1.2 μm	3: 1.35 m ² 14.5 ft ² (30")						
		02: 3 μm	1: 0.65 m ² 7 ft ² (10")		2: 1.3 m ² 14 ft ² (20")				
		42: 5 μm	3: 1.95 m ² 21 ft ² (30")						
		01: 8 μm							
		20: 20 μm							
		50: 50 μm							
		98: 100 μm							



MidiCaps®

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



Mini Cartridge

505		15		P	--	--	--	
Pore Size		Filter Size		Connector Inlet		Connector Outlet		Packing Size
05: 0.65 µm		7: 0.05 m ² 0.54 ft ²		S: 1½" Tri-Clamp 50 mm		S: 1½" Tri-Clamp 50 mm		A: box of 4 (size 7,8,9)
03: 1.2 µm		8: 0.09 m ² 0.97 ft ²		O: ½" single stepped hose barb		O: ½" single stepped hose barb		V: box of 2 (size 0)
02: 3 µm		9: 0.15 m ² 1.61 ft ²						
42: 5 µm		7: 0.65 m ² 0.7 ft ²						
01: 8 µm		8: 0.12 m ² 1.3 ft ²						
20: 20 µm		9: 0.21 m ² 2.26 ft ²						
50: 50 µm								
98: 100 µm								



Capsules

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

Check the availability of your desired configuration with your Sartorius sales representative or online at www.sartorius-stedim.com

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