

# Aquasart® PS 1 µm

Membrane Filter Cartridge  
for the Food & Beverage  
Industry



### Product Information

Aquasart® PS filter cartridges are integrity testable membrane filters especially developed for filtration of water in the Food & Beverage Industry. They are characterised by a unique hydrophilic Polyethersulfone membrane offering a broad chemical compatibility, exceptional high flow rates and total throughputs.

### Applications

Aquasart® PS filter cartridges can be used especially in applications which require a chemical disinfection or cleaning with caustic or acid, due to the broad chemical compatibility from pH 1 to pH 14.

## Total Throughput

The asymmetric pore structure of the Polyethersulfone membrane of the Aquasart® PS filter cartridges provides outstanding total throughputs and high flow rates. Economic system design for filtration processes is assured. The total throughput of the final filters can be significantly increased by an optimised prefilter system reducing the filtration costs overall.

## Flow Rates

The high effective filtration area of Aquasart® PS filter cartridges allows highest flow rates and economic filtration system design.

## Stability

Aquasart® PS filter cartridges withstand more than 5,000 pulsation cycles with differential pressure up to 5 bar | 75 psi and multiple steam sterilisation cycles up to 134 °C without loss of filter integrity.

## Safety

Aquasart® PS filter cartridges membrane can be checked before and after every use with an integrity test.

## Quality Control

Each individual element is tested for integrity during production by Bubble-Point and Diffusion-Test assuring highest product quality.

## Documentation

Aquasart® PS filter cartridges are designed, developed and produced under a ISO 9001 certified Quality Management System.

# Technical Data

## Specifications

Materials	
Membrane	Highly asymmetric, single layer, hydrophilic Polyethersulfone membrane
Fleeces	Polypropylene
Outer Cage	Polypropylene
Inner Core	Polypropylene
Endkaps	Polypropylene
O-Rings	Silicone

Pore Size
1 µm absolute

## Available Sizes | Filtration Area

Size 3	30"	2.1 m <sup>2</sup>   22.6 ft <sup>2</sup>
Size 4	40"	2.8 m <sup>2</sup>   30.1 ft <sup>2</sup>

## Available Adapters

25, 27, 28

Operating Parameters	
Max. Allowable Differential Pressure	5 bar (72.5 psi) at 20 °C 2 bar (29 psi) at 80 °C
Max. Allowable Back Pressure	2 bar (29 psi) at 20 °C
Sterilisation	Hot Water 85–95 °C, 30 min, Δp max. 0.5 bar   7 psi In-Line-Steaming at 110 °C, 30 min, Δp max. 0.5 bar   7 psi
Sterilisation cycles	min. 100

## Compatibility

All materials of construction used to produce these filter products are selected in compliance with the EU and US requirements for products intended to come in contact with foodstuff:

- Meet the requirements for Food Contact Materials in Europe as detailed in Regulation (EC) No 1935/2004 and Regulation (EU) No 10/2011.
- Meet the United States Food and Drug Administration (US FDA) requirements as detailed in Code of Federal Regulations (CFR), Title 21, paragraphs 170– 189. The FDA Compliance for indirect food additives is based on the information provided by our raw material suppliers.

The membrane is chemically resistant within the pH-range of 1– 14.

Aquasart® PS filter cartridges are free of pork DNA and drinkable alcohol.

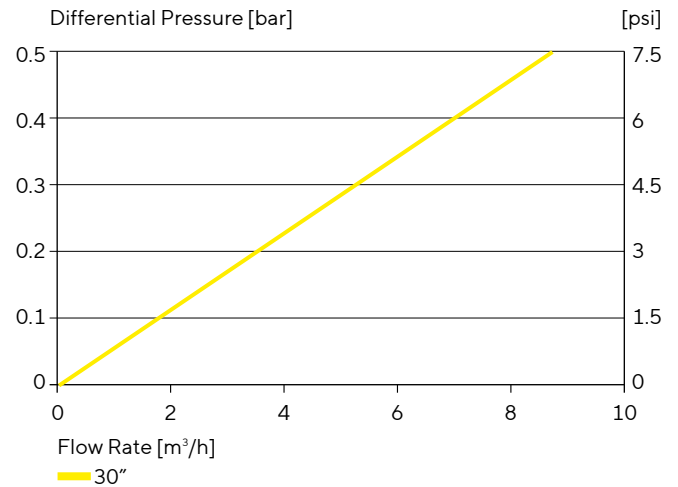
## Ordering Information

### Integrity Test Data for Aquasart® PS Filter Cartridges

Order Code	Pore Size [µm]	Filtration area [m <sup>2</sup> ]
541**24A3	1	2.1
5412524A4	1	2.8

Test Limits for max. Pressure Drop depend on the installation and need to be determined individually.

## Water Flow Rates for 30" Cartridges




**Germany**

Sartorius Stedim Biotech GmbH  
August-Spindler-Straße 11  
37079 Göttingen  
Phone +49 551 308 0

**USA**

Sartorius Stedim North America Inc.  
565 Johnson Avenue  
Bohemia, NY 11716  
Toll-Free +1 800 368 7178

 For further contacts, visit  
[sartorius.com](https://www.sartorius.com)