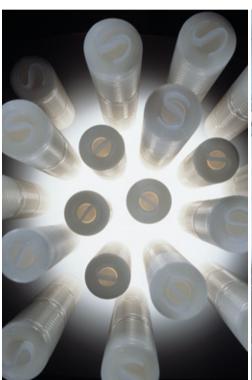
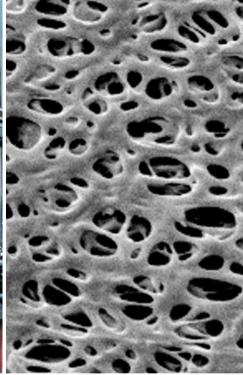


Vinosart® PS Cost efficiency at its best









Vinosart® PS

Minimal process costs, maximum filtration performance

It's time for a new membrane technology – one that is geared towards the requirements of a highly dynamic market. The innovative Vinosart® PS filter cartridge sets new standards in technical performance and optimizes filtration costs.

Vinosart® PS has been specially designed for the filtration of wine and sparkling wines. All the practical tests conducted with this cartridge relate exclusively to wine and sparkling wine applications. This has resulted in a membrane filter that is specially optimized for the beverage filtration process.

Excellent flow rates.

These are facilitated by Vinosart® PS's high filtration performance, which is guaranteed by the new PESU (polyether sulfone) membrane filter material. This material is unique in terms of its structure and performance capability.

Broad compatibility, long in-service life.

Our new filter cartridge has another major advantage. Vinosart® PS is extremely resistant to all conventional chemical regenerating agents and processes, right across the entire pH spectrum from 1 to 14.

The cartridge's excellent chemical regeneration capability extends its service life considerably, thereby reducing the cost of filtration.

The polyether sulfone membrane provides the requisite mechanical and thermal stability. Vinosart® PS easily withstands daily 30-minute steam sterilization cycles at 121°C and thousands of pulsation cycles at a differential pressure of 2 bar (29 psi).



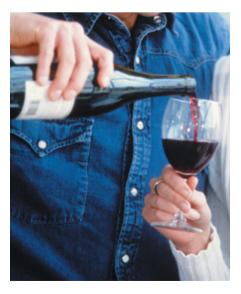
Summary.

Vinosart® PS is ideal for the bottling process of wine and sparkling wine, meets all customers' needs, and ensures smooth bottling operations at the customer's facilities.

Vinosart® PS's top quality provides excellent value combined with high filtration performance.

You'll find that it is well worth a trial filtration run.

Our specialists would be happy to give you a personal demonstration of the Vinosart® PS innovation along with the wide range of products available for your beverage production process.



Sartorius Stedim Biotech has the process down to a tee.

Sartorius Stedim Biotech not only develops filtration systems with optimum process reliability. It also provides equipment for the entire production process of beverages, ranging from clarification through to membrane filtration to fill level control.

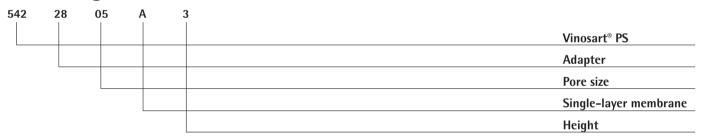
Sartorius Stedim Biotech's range of products includes the following:

- Sartoflow systems for clarification or final cellar filtration
- Standard and Jumbo filter cartridges for particle-removing or polishing filtration
- Filter sheets and filter modules for depth filtration
- Membrane filter cartridges for sterile filtration of wine during bottling
- Equipment for microbiological quality testing and analytical laboratory balances
- Air and gas filter cartridges for tank venting
- Stainless steel filter cartridges for steam filtration

Technical specifications

Filter medium	Single-layer asymmetrical polyether sulfone membrane
Protective non-woven drainage layers	Polypropylene
Core outer support end caps adapters	Polypropylene
O-rings	Silicone
Filtration area	0.78 m ² / 10" cartridge
Pore sizes	0.45 μm and 0.65 μm
Heights	10" (250 mm), 20" (500 mm), 30" (750 mm), 40" (1000 mm)
Maximum differential pressure	5 bar (73 psi) at 20°C
in the direction of filtration	2 bar (29 psi) at 80°C
opposite the direction of filtration	2 bar (29 psi) at 20°C
Sterilization	See Directions for Use of the Filter Cartridges and Data Sheet
Integrity test parameters	See Directions for Use of the Filter Cartridges and Data Sheet
Recommend flow rate	Approx. 600–1000 I/h (30")

Ordering information

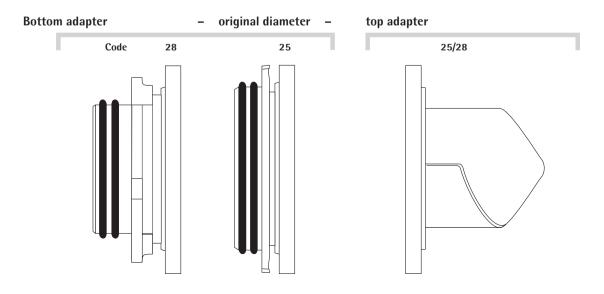


Adapter

S-adapter on top, 2-flange bayonet adapter with double O-ring on bottom
S-adapter on top, 3-flange bayonet adapter with double O-ring on bottom

Pore size

 $\begin{array}{ccc} 05 & & 0.65 \ \mu m \\ 06 & & 0.45 \ \mu m \end{array}$



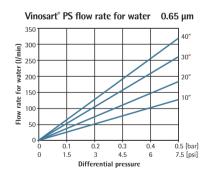
Vinosart® PS



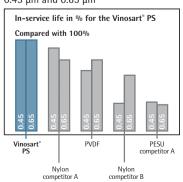
High microbiological stability, optimal performance

Reliable retention of all wine-spoilage microorganisms at minimal filtration costs is the decisive criterion for membrane filter cartridges used in wine filtration. Vinosart® PS ideally fulfills this requirement, ensuring the highest microbiological stability of your beverages. In fact, it meets all the criteria that a membrane filter cartridge has to cover for beverage filtration:

- Integrity test capability
- Validated microbial retention
- Defined pore sizes of 0.65 μm and 0.45 μm
- Thermal sterilization
- Chemical regeneration capability



In-service life comparison 0.45 μm and 0.65 μm



Integrity testable.

The integrity of Vinosart® PS filter cartridges can be tested daily using the Sartocheck®

Mini integrity tester, for example.

The integrity test serves two important purposes. First, it determines whether the filter cartridges function properly before production begins. Second, it allows a batch to be checked immediately at the end of a day of bottling operations.

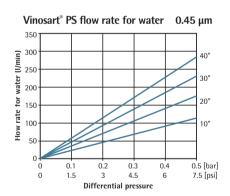
Superior membrane geometry.

The membrane inside Vinosart® PS was especially develoed for the two specific F&B applications "wine- and sparkling wine filtration".

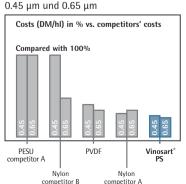
Our manufacturing process of the membrane assures an outstanding performance of Vinosart® PS since the membrane has got a asymmetrical pore geometry that ideally matches the requirements for high flow rates and total throughputs thus fractionate retention.

Summary.

Considering the innovative benefits described above, the Vinosart® PS filter cartridge simply does more for your bottom line – for cost efficiency at its best.



Comparison of filtration costs 0.45 µm und 0.65 µm





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