

Sartolon®

Applications

Sartolon Cartridges and Capsules were especially developed for applications, which require a high chemical compatibility, e.g. aggressive solvent solutions in the chemical and fermentation industries and aqueous solutions in bulk pharmaceutical production.

Performance

Sartolon is focused on the widespread requirements of the pharmaceutical, veterinary and chemical industry with emphasis on the following filtration aspects:

○ Chemical Compatibility

The chemical resistance of the filter cartridge is exceptionally high, due to the Nylon membrane material.

This is an essential criterion in solvent applications, e.g. fermenter feed

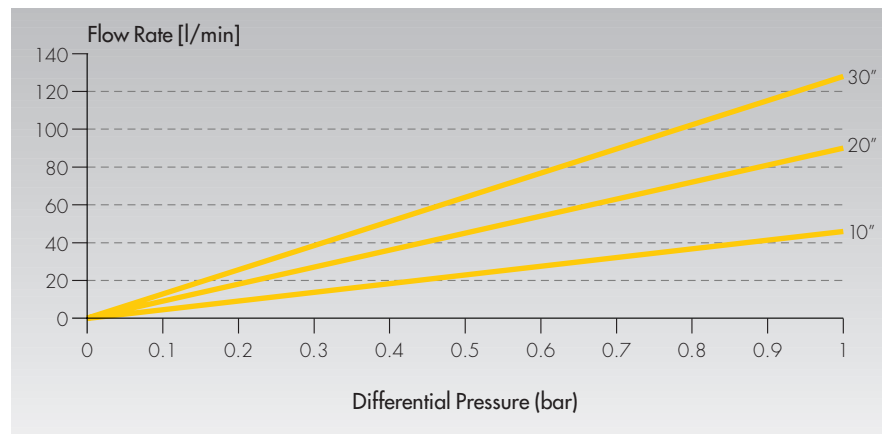
○ Throughput

Due to the heterogeneous double membrane, the total throughput of the Sartolon is higher than any other available Nylon sterilizing grade membrane filter in the market.

○ Stability

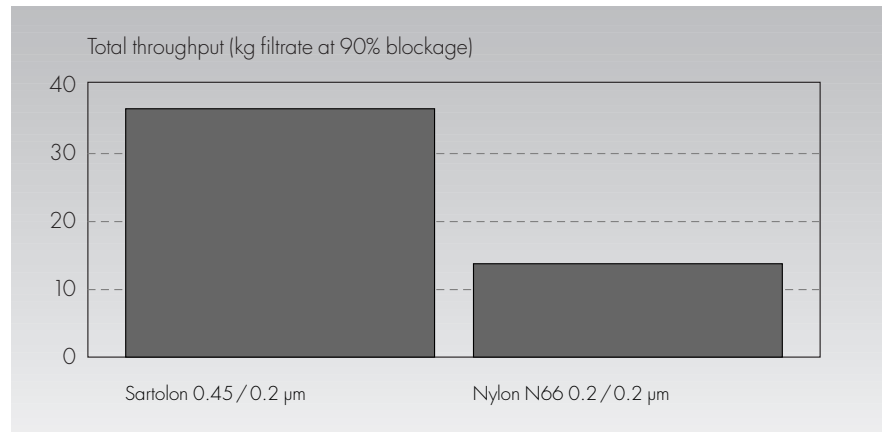
Sartolon cartridges were subjected to 1000 pulsation cycles at a differential pressure of 5 bar without losing their integrity. The same results were achieved even after 25 rigid inline steaming trials at 134 °C. The exceptional stability is achieved by the reinforcement of the prefilter membrane.

Sartolon 0.45/0.2 µm Water Flow Rates for 10", 20" and 30" Cartridges



Standardized at 20°C

Sartolon 0.45/0.2 µm Total throughput Comparison



10" cartridge format



Sartorius AG, Separation Technology

sartorius

Technical Data

Construction	Heterogeneous double layer Nylon membrane with reinforced prefilter membrane		
Pore size:	0.45/0.2 µm		
Filtration area:	Standard cartridge 10"	0.6 m ²	6 ft ²
	Mini/Capsules size 9	0.2 m ²	2 ft ²
Adapter types cartridges:	21, 25		
Connector types capsules:	SS, OO (or combination)		
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		
Sterilization:	Autoclaving (134 °C, 2 bar, 30 min) In-line steaming (134 °C, 30 min at max. differential pressure of 0.5 bar)		
Sterilization cycles:	at least 25		
Materials:	<p>Upstream Support Layer: Polypropylene Prefilter Membrane: Reinforced Nylon Final Filter Membrane: Nylon Downstream Support: Polypropylene Outer Cage: Polypropylene Inner Core: Polypropylene End caps: Polypropylene Capsule Housing: Polypropylene O-rings: Silicone</p>		
Compatibility	<p>Sartolon filters are fully validated and all materials of construction are registered with the FDA. The total amount of extractables is well below the limits established by the USP 23 under "Water for Injection". This includes testing for toxicity by the USP Plastic Class VI test and extractables. pH range: 3.5–10 Sartolon capsules are certified as medical devices according to guideline 93/42/EWG.</p>		

Integrity test data for Sartolon cartridges, Minis and Capsules

Order code	Pore size	Size	Min. B.P. [bar]/[psi]	Test pressure [bar]/[psi]	Max. allowable Diffusion [ml/min]
Sartolon Standart Filter Cartridge					
510..07H1	0.45/0.2 µm	10" (0.6 m ² /6 ft ²)	3.0/44	2.5/36	13
510..07H2	0.45/0.2 µm	20" (1.2 m ² /12 ft ²)	3.0/44	2.5/36	26
510..07H3	0.45/0.2 µm	30" (1.8 m ² /18 ft ²)	3.0/44	2.5/36	39
Sartolon Mini Cartridge					
5101507H9...	0.45/0.2 µm	9 (0.2 m ² /2 ft ²)	3.0/44	2.5/36	4
Sartolon Capsule					
5101307H9...	0.45/0.2 µm	9 (0.2 m ² /2 ft ²)	3.0/44	2.5/36	4