

Sartofine-PP

The High Dirt Loading Depth Filter Cartridge

Sartofine-PP Applications in the Pharmaceutical Industry

Sartofine-PP filter cartridges are designed for the removal of particles and microorganisms from liquids and gases.

- Particle and cell removal from biological broth
- Cell removal from fermentation solutions
- Tissue culture media and diagnostic sera filtration
- Serum product filtration
- Prefiltration of fermentation liquid feeds
- Clarification of solvents, particle retention from acids, solvents
- Particle removal in the filtration of gases
- Utility filter - cleaning machines, steam filtration
- Filtration of bottle, vial and stopper washing fluids
- Replace scintered PTFE in water and steam systems
- Capture of DI resin particles from deionized water and from the feed water to these systems

Product Profile

Sartofine-PP cartridges combine the advantages of both depth filtration and gradient filtration with absolute retention capabilities. Thermally bonded polypropylene materials offer a cartridge without media migration. This coupled with precise manufacturing conditions offers filter cartridges with a wide range of nominal and absolute retentions.

Sartofine-PP cartridges utilize a non-pleated form. The use of successively finer layers of polypropylene fibers form depth filter matrices with a density gradient over four depth zones and leads to an extremely high dirt loading capacity.

All materials have passed the USP 23 Class VI Plastics Test. The filtrate meets or exceeds the USP requirements for Water for Injection with respect to total solids, oxidizable substances, particulate matter, ammonia, chloride, nitrate, sulfate and heavy metals. Sartofine-PP complies with cGMP requirements for non-fiber releasing filters and is filed under the Drug Master File Number 5967 by the Food and Drug Administration, Washington, D.C. Full validation information is available.

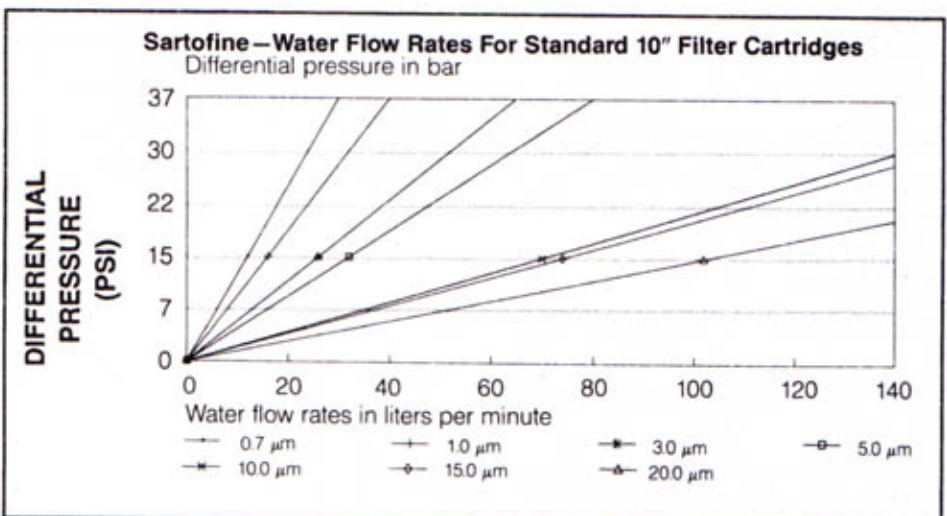
Chemical Compatibility

With the broad chemical compatibility of polypropylene and the high physical strength of the cartridge, Sartofine-PP cartridges are resistant to both back pressure and pulsation pressure while being compatible with most solvents.

Highly Efficient Prefilters

These filters can greatly reduce the cost of filtration by extending the service life of membrane based filter cartridges when filtering liquids with a wide spectrum of particle sizes. These filters are also suitable as particle removing filters for the filtration of gases.

Features	Benefits
Combination of 4 zones of successively finer depth filter materials.	High dirt loading capacity.
Precise manufacturing conditions.	Thermally bonded polypropylene materials offers a cartridge without media migration. This offers filter cartridges with a wide range of nominal and absolute retentions.
All propylene construction.	With the broad chemical compatibility of polypropylene to most solvents and high physical strength of the cartridge, Sartofine-PP cartridges are resistant to both back pressures and pulsation pressures.
Sartofine-PP cartridges provide long service life in the filtration of liquids which contain a wide spectrum of particle sizes.	Reduces the cost of filtration by extending the service life of membrane filter cartridges.



Materials of Construction

Depth Filter Materials Inner Core	Polypropylene Polypropylene	End Caps O-Rings	Polypropylene Silicone*
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*EPDM and Viton O-Rings are also available. Add an E or V to the part number.

Technical Data

Filter outer surface area, standard cartridges:	0.05 m ² (0.5 ft ²) per 10" element (surface area of each layer)
Filtration media thickness:	12 mm (40 layers)
Maximum differential pressure:	75 psi at 20°C
Biocompatibility:	Meets and exceeds all requirements of USP 23 Class VI Plastics Tests.
Sterilization:	Autoclaving (121°C, 15 psi, 30 min.) In-line steaming (up to 30 psi inlet with max. differential pressure of 7 psi, 30 min.) Hot water sanitized at 80°C for 30 min.
Chemical compatibility:	See table in the Sartorius Validation Guide or contact Sartorius

Retention Rating

Sartofine-PP: retention rating	Retention capability*	
	99.9% retention of particle size:	100% retention of particle size:
20 µm	20 µm	25 µm
15 µm	15 µm	20 µm
10 µm	10 µm	12 µm
5 µm	5 µm	7 µm
3 µm	3 µm	5 µm
1 µm	1 µm	3 µm
0.7 µm	0.7 µm	1 µm

* The effectiveness depends in part on the development of a filter cake at the start of the filtration and is dependent on the medium being filtered.

Available Types and Order Numbers: Sartofine-PP Cartridges

Nominal (99.9%) Pore Size	1-high	2-high	3-high
	(10")	(20")	(30")
20 µm	558..20W1	558..20W5	558..20W3
15 µm	558..15W1	558..15W5	558..15W3
10 µm	558..10W1	558..10W5	558..10W3
5 µm	558..42W1	558..42W5	558..42W3
3 µm	558..02W1	558..02W5	558..02W3
1 µm	558..03W1	558..03W5	558..03W3
0.7 µm	558..05W1	558..05W5	558..05W3

*EPDM and Viton O-Rings are also available. Add an E or V to the part number.

.. Substitute the desired endcap/adapter configuration

00 for the "knife end seal" - double open end type adapter

03 for double open end with flat gasket seal

05 for S-adapter top with 2-pin bayonet-type 226 double O-ring adapter bottom

06 for S-adapter top with 222 double O-ring adapter bottom

07 for Flat top with 222 double O-ring adapter bottom

Adapter Types

