



Sartoclear® Depth Filter Modules

Cell Clarification and Contaminant Removal Technologies

Product Information

Sartoclear® filters are cellulose-based depth filters developed for demanding clarification applications in the biotechnological and pharmaceutical industries. Sartoclear® Various device formats are available to serve you from first the steps, throughout clinical phases and up to large scale manufacturing while always keeping the same filter material.



Depth Filter Modules

Sartoclear® Depth Filter modules are stackable, lenticular shaped depth filters for use in stainless steel housings, which are often used in large scale manufacturing facilities for biologicals.

Applications

- Mammalian cell culture harvests
- Microbial lysates
- Removal of precipitates from sera and plasma
- Particle and colloid removal from process intermediates
- Media Filtration

Sartoclear® P Depth Filter Media

DL-Series

Sartoclear® DL-Series are high capacity depth filters made of two distinct filtration layers. The primary coarser layer is followed by a second finer layer which enables the removal of a broader spectrum of particles in a single step. The Sartoclear® DL-Series are pre-selected and optimized to serve the most common biopharmaceutical applications. See below for detailed application guidance per DL-grade.

S-Series

Sartoclear® S-Series are single layer depth filter media grades for more specific applications such as vaccines and process intermediates with a lower or homogenous particle load. The Sartoclear® S-Series are also available as filter sheets for plate and frame filters often used in the plasma industries.

Grade	Description	Application examples ^{1,2}
DL90	Very coarse primary grade on top of a coarse secondary filter for filtrations with high solid concentrations ²	Primary clarification of mammalian cell cultures, insect cell cultures, microbial fermentations, vaccines
DL75	Pure cellulose pre-filter combined with a coarse secondary filter	Primary clarification of mammalian cell cultures, insect cell cultures, microbial fermentations, vaccines
DL60	Coarse primary grade with a secondary fine filtration grade for lower to moderate solid concentrations	Post-perfusion bioreactors, vaccines
DL20	Fine filtration grade combined with a standard bioburden reduction grade for the removal of particles	Post centrifuge mammalian cell cultures, post primary depth filtration, process precipitates
DL10	Fine filtration grade followed by an very tight secondary filter for the removal of high concentrations of small particles	Post centrifuge microbial (e.g. E. coli) lysates, post primary depth filtration step, process precipitates

¹ The listed examples are indicative and need to be confirmed by small scale tests

² Sartorius recommends Sartoclear[®] Dynamics for cell cultures above 5 % WCW

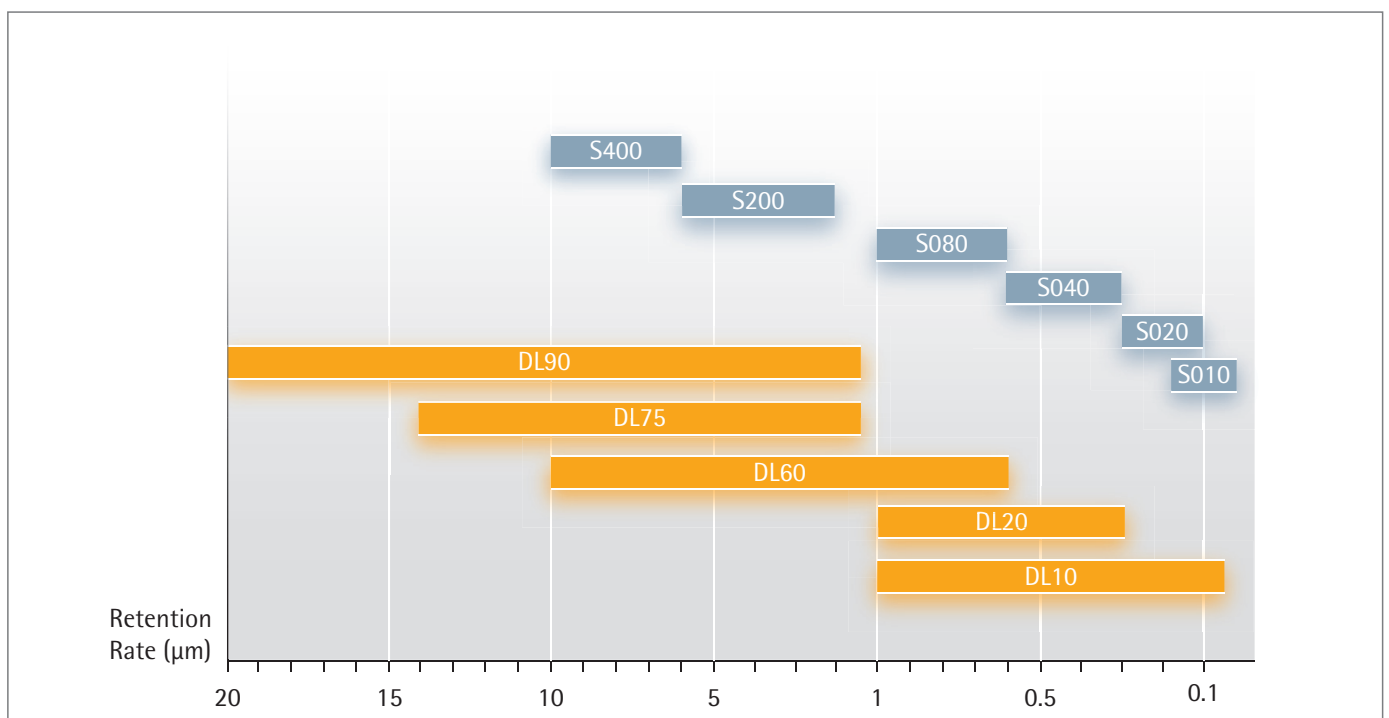
Technical Data

Specifications S-Series

Grade	Thickness [mm]	Ash Content [%]	Water Flow [L/m ² /min]
S010	3.9	58	30
S020	3.9	50	46
S040	3.9	49.0	61
S080	3.9	50.0	175
S200	3.9	50.0	330
S400	4.1	48	2,381

Specifications DL-Series

Grade	Primary Layer	Secondary Layer	Water Flow (100 kPa) [L/m ² /min]
DL10	S080	S010	26
DL20	S080	S040	45
DL60	S400	S080	160
DL75	S600	S200	302
DL90	SX00	S200	315



Materials	
Filter media	Cellulosic depth filter with inorganic filter aids
Gaskets	Silicone
Core	Stainless steel
Plastics	Polypropylene

Single Layer	
Cells per module	16
Filtration area	12": 1.9 m ² 16": 3.7 m ²
Height	276 mm

Double Layer	
Cells per module	8
Filtration area	1.9 m ²
Height	185 mm

Operating Parameters	
Max. allowable differential pressure	2.0 bar 36 psi
Max. allowable back pressure	0.03 bar 0.4 psi
Hot water flush	80°C at 1 bar for 30 min

Sanitization	
Steam sterilization	Max. 134°C at 2.0 bar
Max. differential pressure during steam sterilization	0.35 bar 0.5 psi
Hot water flush	80°C for 30 minutes
Max differential pressure during hot water flush	1.5 bar 21.75 psi

Ordering Information

Sartoclear® Lenticular Depth Filters

Order No.	Grade	Description	Qty.
29LS010-12-FA	S010	Single Layer, 1.9 m ² , diameter 12 inch	1
29LS020-12-FA	S020	Single Layer, 1.9 m ² , diameter 12 inch	1
29LS040-12-FA	S040	Single Layer, 1.9 m ² , diameter 12 inch	1
29LS080-12-FA	S080	Single Layer, 1.9 m ² , diameter 12 inch	1
29LS200-12-FA	S200	Single Layer, 1.9 m ² , diameter 12 inch	1
29LS400-12-FA	S400	Single Layer, 1.9 m ² , diameter 12 inch	1
29LS010-16-FA	S010	Single Layer, 3.7 m ² , diameter 16 inch	1
29LS020-16-FA	S020	Single Layer, 3.7 m ² , diameter 16 inch	1
29LS040-16-FA	S040	Single Layer, 3.7 m ² , diameter 16 inch	1
29LS080-16-FA	S080	Single Layer, 3.7 m ² , diameter 16 inch	1
29LS200-16-FA	S200	Single Layer, 3.7 m ² , diameter 16 inch	1
29LS400-16-FA	S400	Single Layer, 3.7 m ² , diameter 16 inch	1
29LDL10-16-FA	DL10	Double Layer, 1.9 m ² , diameter 16 inch	1
29LDL20-16-FA	DL20	Double Layer, 1.9 m ² , diameter 16 inch	1
29LDL60-16-FA	DL60	Double Layer, 1.9 m ² , diameter 16 inch	1
29LDL75-16-FA	DL75	Double Layer, 1.9 m ² , diameter 16 inch	1
29LDL90-16-FA	DL90	Double Layer, 1.9 m ² , diameter 16 inch	1

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