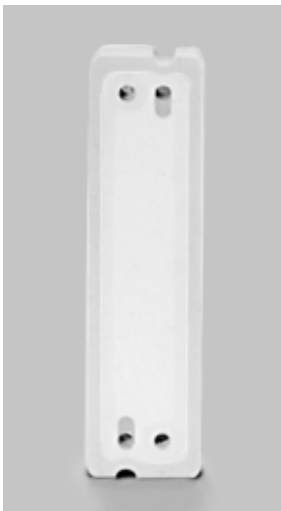




Ultrafiltration Cassettes



Sartococon Cassette



Sartococon Slice Cassette

The Hydrosart® Membrane

Hydrosart is a stabilized cellulose based membrane that has been optimized for the biotechnological and pharmaceutical industry. The Hydrosart membrane is a stable polymer that features a broad pH range. Hydrosart is also extremely hydrophilic, making it non-protein binding, virtually non-foul, and has extremely high flux. Membrane regeneration, storage and depyrogenation can be accomplished by using NaOH even at elevated temperatures. These features make Hydrosart an ideal membrane for biological applications. Hydrosart ultrafiltration cassettes are available in the following nominal molecular weight cutoffs:

- 5 k
- 10 k
- 30 k

Product Profile

Hydrosart shows minimal adsorption of proteins, viruses, etc. Membrane retention is unaffected by repeated re-use. The Hydrosart ultrafiltration membrane can be re-used without any less cleaning loss of integrity or performance.

Quality Control

Each filter cassette is individually serialized, integrity tested and certified.

Applications

Hydrosart ultrafiltration membranes are designed for use in the biotechnological and pharmaceutical industries. They can be used for the following applications:

- Oligonucleotide
- Proteins
 - Albumin, even with 40% EtOH
 - Hemoglobin
- Coagulation factors
 - Factor VIII
 - Factor III
- Vaccines
 - Tetanus
 - Diphtheria

Validation

All materials have passed the current USP Biological Test. The filtrate meets or exceeds USP and EP requirements for Sterile Water for Injection with respect to total solids, oxidizable substances, particulate matter, ammonia, chloride, nitrate, sulfate and heavy metals. It complies with cGMP requirements for non-fiber releasing filters and is filed under the Drug Master File Number DMF 5967 by the Food and Drug Administration, Washington, DC. Validation information is available upon request.

If you have holding devices from other suppliers, please contact our Application Department: Changes in the torque might be needed due to specific variance in design.

For further assistance, contact your local Sartorius field engineer or our Goettingen-based Applications Department in Germany.

Features	Benefits
Non-adsorptive	No loss of proteins, easy to clean, sustained flux
Non-protein binding	High product yield
Wide pH and temperature range	More choices in sanitizing agents
High flow rates	Economical filtration runs
Self sealing cassette	No gaskets needed
Silicone sealing compound	No glue
Enlarged inlet and outlet holes	Lower pressure drop

* Better solvent resistance than PESU

Technical Specifications

Membrane material	Hydrosart (stabilized cellulose based polymer)
Cutoff	5 k, 10 k, 30 k
Filter area Sartocoon cassette	0.6 m ²
Filter area Sartocoon Slice cassette	0.1 m ²
Feed pressure, P _{in}	57 psi (4 bar) maximum, at 20° C
Operating temperature	50°C maximum
pH stability	2–14 (20 °C)
Max. air diffusion rates at P _{in} = 1 bar	15 ml air/min for 0.6 m ² filter area 5 ml air/min for 0.1 m ² filter area
Cleaning	NaOH, 1 M, 40°C
Disinfection	NaOH, 1 M, 40°C, 30 min
Storage	NaOH, 0.1 M

Typical Water Flux Release Data

Nominal molecular weight cutoff (k)	Sartocoon cassettes 0.6 m ² filter area Permeate*	Sartocoon Slice cassettes 0.1 m ² filter area Permeate*
5 k	12 l/h	3 l/h
10 k	35 l/h	8 l/h
30 k	120 l/h	25 l/h

* (Feed pressure, P_{in} = 1.5 bar; Retentate pressure, P_{out} = closed valve; P_{filtrate} = open valve)

Hydrosart®

Substance	Approx. Mol. Wt.	5 k	10 k	30 k
Albumin	67.000	–	–	>97,5%
Cytochrome C	12.400	–	>97,5%	–
Inulin	5.000	97%	–	–

Materials of Construction

Membrane	Hydrosart, UF
Gaskets	PVDF
Spacer	Polypropylene
Sealing compound	Silicone

Available Types and Order Numbers

Type	Filter area	Cut-off	Order No.
Sartocoon cassettes	0.6	5 k	302 144 29 06 E--SG
Sartocoon cassettes	0.6	10 k	302 144 39 06 E--SG
Sartocoon cassettes	0.6	30 k	302 144 59 06 E--SG
Sartocoon Slice cassettes	0.1	5 k	305 144 29 01 E--SG
Sartocoon Slice cassettes	0.1	10 k	305 144 39 01 E--SG
Sartocoon Slice cassettes	0.1	30 k	305 144 59 01 E--SG

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