

■ Sartolab® RF | BT

Disposable Filter Systems and Bottle-Top Filters



Sartolab® single-use sterile filter systems and bottle-top filters are designed for the vacuum filtration of tissue culture media and components, biological fluids, and other aqueous solutions.

The Sartolab® single-use 150 mL, 250 mL, 500 mL and 1,000 mL bottles are designed as storage containers for sterile media, buffers, or other aqueous solutions.



These products are for laboratory use only and not for human parenteral applications.

Materials

The filter funnels, dust covers and receiver bottles are manufactured from virgin, heavy metal-free polystyrene. The tubing adapters, filter adapters, and the plug seal caps are made of heavy metal-free polyethylene. Sartolab® filter systems are available with polyethersulfone and cellulose acetate membranes. All units are sterilized by gamma irradiation.

Performance

The filter units contain membranes integrally sealed to a support grid designed to maximize flow and reduce foaming and protein denaturation.

The membranes are compatible with most aqueous solutions and tested for use in cell culture applications.

Filter Systems

The filter adapter utilizes a gasket design to ensure a vacuum-tight seal on the receiver | storage bottle. Each filter unit also contains a convenient tubing adapter that will fit most vacuum hoses.

The bottles are single-use containers.

They cannot withstand autoclaving or use at temperatures greater than 70°C. The suitability of the bottles for storage of solutions below 0°C depends both on the solution and the storage conditions. Many aqueous solutions, including culture media, have been successfully frozen and stored at temperatures down to -20°C. However, a trial run under actual conditions is strongly recommended to test the suitability of the bottles for frozen storage.

□ Specifications

Pore Size	Membrane Material	Characteristics
0.1 µm	Polyethersulfone	Very low protein binding and low extractables, fast flow rate
0.2 µm	Cellulose Acetate	Optimized for aqueous liquids, very low nonspecific binding
0.45 µm	Polyethersulfone	Very low protein binding and low extractables, fast flow rate

Bottle-Top Filters

The filter adapter is available with a 45 mm thread finish, and is designed to ensure a vacuum-tight seal on customer-supplied bottles with the appropriate thread finish. Each filter unit also contains a tubing adapter that will fit most vacuum hoses.

Chemical Compatibility

The mechanical strength, color, appearance, and dimensional stability of filter systems, bottle-top filters and plastic bottles are affected to varying degrees by the chemicals with which they come in contact. Specific operating conditions, especially temperature, will also affect their chemical resistance. A table is provided to serve as a general guideline for the chemical resistance of Sartolab® single-use sterile filters and bottles.

Chemical Resistance of Sartolab® Filters

Chemical Class	Membrane (PES)	Membrane (CA)	Housing (PS)
Weak Acids	3	2	1
Strong Acids	3	2	2
Alcohols	2	2	2
Aldehydes	3	3	3
Aliphatic Amines	1	3	3
Aromatic Amines	3	3	3
Bases	3	3	1
Esters	3	3	3
Hydrocarbons	3	2	3
Ketones	3	3	3

Key: 1. recommended

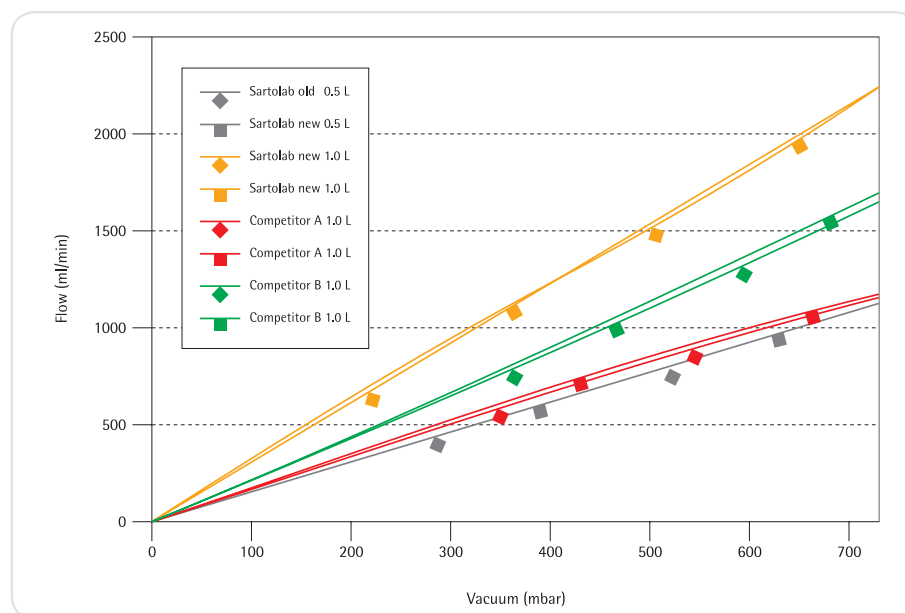
2. may be suitable for some applications; a trial run is recommended

3. not recommended. PS, polystyrene; PES, polyethersulfone; CA, cellulose acetate.

Ordering Information

Volume	Membrane	Filter Area	Qty./Pkg.	Order No.
Sartolab® RF Filtration System Including Collection Bottle				
150 mL	0.22 µm PES	18 cm ²	12	180C1-----E
250 mL	0.22 µm PES	24 cm ²	12	180C7-----E
500 mL	0.22 µm PES	39 cm ²	12	180C2-----E
1,000 mL	0.22 µm PES	62 cm ²	12	180C3-----E
1,000 mL	0.1 µm PES	62 cm ²	12	180C8-----E
250 mL	0.45 µm CA	24 cm ²	12	180A1-----E
500 mL	0.45 µm CA	39 cm ²	12	180A2-----E
1,000 mL	0,45 µm CA	62 cm ²	12	180A3-----E
Sartolab® BT Bottle-Top Filters Without Integrated Collection Bottle				
150 mL	0.22 µm PES	18 cm ²	48	180C4-----K
500 mL	0.22 µm PES	39 cm ²	12	180C5-----E
1,000 mL	0.22 µm PES	62 cm ²	12	180C6-----E
500 mL	0.45 µm CA	39 cm ²	12	180A4-----E

Water Throughput



■ Sartolab® RF 50

Vacuum filtration unit for volumes of up to 50 mL



Sartolab® RF 50 vacuum filtration units are single-use units, designed for the filtration of sample volumes of up to 50 mL. They are available either with a 0.22 or a 0.45 µm polyethersulfone membrane which have been developed and manufactured by Sartorius at its own facilities.

Both membranes provide fastest flow rates due to their asymmetric structure and ensure lowest protein binding as well as low extractables. The 0.22 µm version is ideal for sterile filtration of cell cultures, buffers and aqueous solutions; the 0.45 µm for clarification. Both versions are individually-packed, sterile and ready to use.

Sartolab® RF 50 vacuum filtration unit is composed of a funnel, with dust cover, a 50 mL conical tube with graduation and writing field as well as a tubing connector for vacuum connection and a screw cap to store your filtrate in the conical tube. The design of the yellow adapter connecting the funnel to the conical tube ensures a vacuum-tight seal and enables the filtration unit to be used on the Sartolab® MultiStation for filtration of up to 6 samples in parallel with one vacuum source.

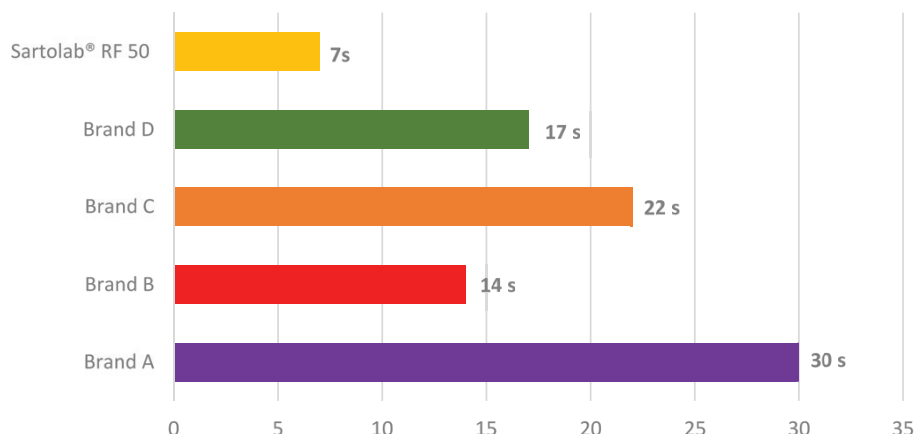
Sartolab® RF 50 can also be used alone when connecting the tubing connector delivered with each unit to your vacuum source.

The tubing connector and the screw cap for the conical tube are individually wrapped to maintain sterility until needed.

User Benefits

- Highest flow rates with an asymmetric membrane and a large surface area
- No loss of protein with a very low protein binding membrane
- Low dead volume thanks to an optimized membrane support
- Minimized risks of contamination with a complete ready-to-use unit (no further transfer of liquid for storage necessary)
- Designed as standalone system or for a parallel filtration of up to 6 samples with Sartolab® MultiStation

Filtration of 50 mL cell media + 10 % FBS in a 50 mL vacuum filtration unit (0.22 µm)



Materials

Funnel with dust cover	Styrene-acrylonitrile (SAN)
Membrane filter	0.22 µm polyethersulfone (order no. 180E01)
Funnel adapter	0.45 µm polyethersulfone (order no. 180F01)
Tubing connector for vacuum connection	Polyethylene
Conical tube	Polyethylene
Conical tube cap	Polypropylene

Specifications

Membrane diameter	58.5 mm
Effective filtration area	21 cm ²
Hold-up volume	1.2 mL
Filtration capacity	50 mL
Size of the 50 mL conical tube	Height: 115.5 mm External/internal diameter: 29.5 mm/27.48mm
Autoclavable	No
Sterilization method	E-Beam (beta) irradiation
Storage temperature of the conical tube	4°C to 30°C (short-term: -80°C to max. 100°C)
Packaging	Single-packaged, sterile
Operating pressure	-350 to -700 mbar

Ordering Information

Description	Quantity	Order Number
Sartolab® RF 50, 0.22 µm, PES	24 units	180E01-----2
Sartolab® RF 50, 0.45 µm, PES	24 units	180F01-----2



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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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