

SYRINGE FILTERS



Syringe filter, non sterile



Syringe filter, sterile



Syringe filter + microfiberglass prefilter, non sterile



Syringe filter + microfiberglass prefilter, sterile

Diameter	13 mm	25 mm	33 mm
Material - all except GF	PP (injection moulding)		
Material - with GF	PP (ultrasonic welding)		
Filtration area	1.09 cm ²	4.08 cm ²	5.39 cm ²
Sample volume	<30 mL	< 100 mL	< 200 mL
Holdup volume	< 10 µL	< 25 µL	< 35 µL
Max pressure	75 psi		
Max temperature	50°C		
Inlet	female luer lock		
Outlet	male luer slip		
If sterilisation	gamma rays		

Our range of syringe filters come in 3 sizes and various pore sizes.

Each unit is carefully marked with both membrane type and pore size to avoid any confusion in your laboratory.

The shell is made of polypropylene and is moulded with sample distribution rings in order to obtain an even distribution of the sample and hence a higher flow rate. The PP housing is assembled by injected molding; this production method gives the opportunity of inserting a colored ring for an easy recognition of the syringe filter in the laboratory (except for glass microfiber syringe filters: ultrasonically welded PP housing) and of reinforcing the body robustness during filtration process (minimized risk of opening under the syringe pressure).

For sterilized goods, we use gamma-ray methods.







CA - Cellulose acetate



The CA syringe filters have a hydrophilic membrane that allows the filtration of aqueous solutions, especially in biology. The sterile syringe filters are suitable for cell culture applications, for proteins or enzymes samples.

Chemical compatibility: pH 3-7

Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm	0.80 µm	1.20 µm	3.00 µm	5.00 µm
Water flow (mL/min/cm ² @10psi)	9-31	33-46	85-102	110-125	260-290	280-320
Bubble point (psi)	47-71	32-36	19-22	16-19	10-13	8-10

	Diameter (mm)	0.22		0.45		0.80	
	13	SF13CA22C	100	SF13CA45C	100		
		SF13CA22M	1000	SF13CA45M	1000		
	25	SF25CA22L	50	SF25CA45L	50	SF25CA80L	50
SF25CA22C		100	SF25CA45C	100	SF25CA80C	100	
SF25CA22M		1000	SF25CA45M	1000	SF25CA80M	1000	
33	SF33CA22L	50	SF33CA45L	50			
	SF33CA22C	100	SF33CA45C	100			
	SF33CA22M	1000	SF33CA45M	1000			
	13	SF13CA22S	50	SF13CA45S	50		
	25	SF25CA22S	50	SF25CA45S	50	SF25CA80S	50
	33	SF33CA22S	50	SF33CA45S	50		
	25	SF25CAF22L	50	SF25CAF45L	50		
		SF25CAF22M	1000	SF25CAF45M	1000		
	33	SF33CAF22L	50	SF33CAF45L	50		
SF33CAF22M		1000	SF33CAF45M	1000			
	Diameter (mm)	1.20		3.00		5.00	
	25	SF25CA120L	50	SF25CA300L	50	SF25CA500L	50
		SF25CA120C	100	SF25CA300C	100	SF25CA500C	100
		SF25CA120M	1000	SF25CA300M	1000	SF25CA500M	1000

Packing information:




All packs contain 50 - 100 - 1000 units
Other references upon request

FV - Glass microfiber

The FV syringe filters present an excellent chemical compatibility and resist to organic solvents and strong acids. They are used in prefiltration of viscous solutions or for filtration of separation of cells media before sterilization.

Chemical compatibility: pH 1-14



	Diameter (mm)	1.00	
	13	SF13FV100C	100
		SF13FV100M	1000
	25	SF25FV100L	50
		SF25FV100C	100
		SF25FV100M	1000
	33	SF33FV100L	50
		SF33FV100M	1000

Packing information:

All packs contain 50 - 100 - 1000 units
Other references upon request




MCE - Mixed cellulose esters

Showing a good chemical resistance, MCE syringe filters are efficient in the filtration of proteins, enzymes and other aqueous solutions. The applications are various such as clarification, purification or sterilization of biological fluids.

Chemical compatibility: pH 4-8

Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm
Water flow (mL/min/cm ² @10psi)	12-18	38-71
Bubble point (psi)	52-65	29-40



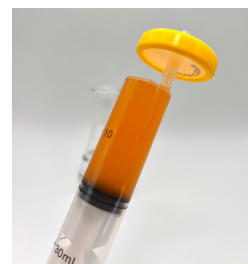
	Diameter (mm)	0.22		0.45	
	13	SF13ME22C	100	SF13ME45C	100
		SF13ME22M	1000	SF13ME45M	1000
	25	SF25ME22L	50	SF25ME45L	50
		SF25ME22C	100	SF25ME45C	100
		SF25ME22M	1000	SF25ME45M	1000
	33	SF33ME22L	50	SF33ME45L	50
		SF33ME22C	100	SF33ME45C	100
		SF33ME22M	1000	SF33ME45M	1000
		13	SF13ME22S	50	SF13ME45S
25		SF25ME22S	50	SF25ME45S	50
33		SF33ME22S	50	SF33ME45S	50
	25	SF25MEF22L	50	SF25MEF45L	50
		SF25MEF22M	1000	SF25MEF45M	1000
	33	SF33MEF22L	50	SF33MEF45L	50
		SF33MEF22M	1000	SF33MEF45M	1000

Packing information:

All packs contain 50 - 100 - 1000 units
Other references upon request



NYL - Polyamide



Naturally hydrophilic, with a good mechanical strength and strong absorption, the nylon syringe filters are suitable for the filtration of HPLC samples, filtration and clarification of solvents.

Chemical compatibility: pH 3-14

Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm	0.80 µm	1.20 µm	3.00 µm	5.00 µm
Water flow (mL/min/cm ² @10psi)	4-6	9-10	35-40	52-65	80-90	135-150
Bubble point (psi)	46-56	30-32	14-17	10-14	8-9	5-6

	Diameter (mm)	0.22	0.45	0.80			
	13	SF13NY22C	100	SF13NY45C	100		
		SF13NY22M	1000	SF13NY45M	1000		
	25	SF25NY22L	50	SF25NY45L	50	SF25NY80L	50
		SF25NY22C	100	SF25NY45C	100	SF25NY80C	100
		SF25NY22M	1000	SF25NY45M	1000	SF25NY80M	1000
	33	SF33NY22L	50	SF33NY45L	50		
		SF33NY22C	100	SF33NY45C	100		
		SF33NY22M	1000	SF33NY45M	1000		
	25	SF25NYF22L	50	SF25NYF45L	50		
		SF25NYF22M	1000	SF25NYF45M	1000		
	33	SF33NYF22L	50	SF33NYF45L	50		
		SF33NYF22M	1000	SF33NYF45M	1000		
		13	SF13NY22S	50	SF13NY45S	50	
		25	SF25NY22S	50	SF25NY45S	50	
33		SF33NY22S	50	SF33NY45S	50		
	25	SF25NY120L	50	SF25NY300L	50	SF25NY500L	50
		SF25NY120C	100	SF25NY300C	100	SF25NY500C	100
		SF25NY120M	1000				



Packing information:
All packs contain 50 - 100 - 1000 units
Other references upon request

PES - Polyethersulfone

Made with a hydrophilic membrane, polyethersulfone syringe filters show both a high thermic and a great chemical resistance. Their water flow rate is ideal for alkaline liquid or organic solvent filtration. They can be used for a very fast filtration of viscous solutions.

Chemical compatibility: pH 4-8

Packing information:

All packs contain 50 - 100 - 1000 units
Other references upon request

Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm
Water flow (mL/min/cm ² @10psi)	11-16	30-48
Bubble point (psi)	51-65	35-53



	Diameter (mm)	0.22		0.45	
	13	SF13PE22C	100	SF13PE45C	100
		SF13PE22M	1000	SF13PE45M	1000
	25	SF25PE22L	50	SF25PE45L	50
		SF25PE22C	100	SF25PE45C	100
	33	SF25PE22M	1000	SF25PE45M	1000
		SF33PE22L	50	SF33PE45L	50
	13	SF13PE22S	50	SF13PE45S	50
		SF25PE22S	50	SF25PE45S	50
	25	SF25PE22S	50	SF25PE45S	50
		SF33PE22S	50	SF33PE45S	50
	33	SF33PE22S	50	SF33PE45S	50
		SF33PE22M	1000	SF33PE45M	1000
	25	SF25PEF22L	50	SF25PEF45L	50
		SF25PEF22M	1000	SF25PEF45M	1000
	33	SF33PEF22L	50	SF33PEF45L	50
		SF33PEF22M	1000	SF33PEF45M	1000
	33	SF33PEF22L	50	SF33PEF45L	50
		SF33PEF22M	1000	SF33PEF45M	1000

PP - Polypropylene

Hydrophobic and with an excellent chemical stability, the PP syringe filters are suitable for HPLC samples containing weak solids or sterile filtration of samples of small volume.

Chemical compatibility: pH 1-14

Packing information:

All packs contain 50 - 100 - 1000 units
Other references upon request

Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm
Ethyl alcohol flow (mL/min/cm ² @10psi)	250-300	300-450



	Diameter (mm)	0.22		0.45	
	13	SF13PP22C	100	SF13PP45C	100
		SF13PP22M	1000	SF13PP45M	1000
	25	SF25PP22L	50	SF25PP45L	50
		SF25PP22C	100	SF25PP45C	100
	33	SF25PP22M	1000	SF25PP45M	1000
		SF33PP22L	50	SF33PP45L	50
	13	SF13PP22S	50	SF13PP45S	50
		SF25PP22S	50	SF25PP45S	50
	25	SF25PP22S	50	SF25PP45S	50
		SF33PP22S	50	SF33PP45S	50
	33	SF33PP22S	50	SF33PP45S	50
		SF33PP22M	1000	SF33PP45M	1000
	25	SF25PPF22L	50	SF25PPF45L	50
		SF25PPF22M	1000	SF25PPF45M	1000
	33	SF33PPF22L	50	SF33PPF45L	50
		SF33PPF22M	1000	SF33PPF45M	1000
	33	SF33PPF22L	50	SF33PPF45L	50
		SF33PPF22M	1000	SF33PPF45M	1000



PVDF - Polyvinylidene

PVDF syringe filters are hydrophobic and offer an excellent chemical resistance against most organic solvents and aggressive liquids. They are suitable for air and gas filtration.

Chemical compatibility: pH 1-14

Packing information:

All packs contain 50 - 100 - 1000 units
Other references upon request

Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm		Diameter (mm)	0.22	0.45
Ethyl alcohol flow (mL/min/cm ² @10psi)	30-40	70-105		13	SF13PV22C 100 SF13PV22M 1000	SF13PV45C 100 SF13PV45M 1000
Bubble point (psi)	21-23	11-23		25	SF25PV22L 50 SF25PV22C 100 SF25PV22M 1000	SF25PV45L 50 SF25PV45C 100 SF25PV45M 1000
				33	SF33PV22L 50 SF33PV22C 100 SF33PV22M 1000	SF33PV45L 50 SF33PV45C 100 SF33PV45M 1000
				13	SF13PV22S 50	SF13PV45S 50
				25	SF25PV22S 50	SF25PV45S 50
				33	SF33PV22S 50	SF33PV45S 50
				25	SF25PVF22L 50 SF25PVF22M 1000	SF25PVF45L 50 SF25PVF45M 1000
				33	SF33PVF22L 50 SF33PVF22M 1000	SF33PVF45L 50 SF33PVF45M 1000



RC - Regenerated cellulose

RC syringe filters are recommended for the direct filtration of aqueous solutions or of any type of organic solvent. Their benefit is to offer a great capacity of particles extraction.

Chemical compatibility: pH 3-12

Packing information:

All packs contain 50 - 100 - 1000 units
Other references upon request

Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm		Diameter (mm)	0.22	0.45
Water flow (mL/min/cm ² @10psi)	9-11	30-48		13	SF13RC22C 100 SF13RC22M 1000	SF13RC45C 100 SF13RC45M 1000
Bubble point (psi)	19-22	10-15		25	SF25RC22L 50 SF25RC22C 100 SF25RC22M 1000	SF25RC45L 50 SF25RC45C 100 SF25RC45M 1000
				33	SF33RC22L 50 SF33RC22C 100 SF33RC22M 1000	SF33RC45L 50 SF33RC45C 100 SF33RC45M 1000
				13	SF13RC22S 50	SF13RC45S 50
				25	SF25RC22S 50	SF25RC45S 50
				33	SF33RC22S 50	SF33RC45S 50
				25	SF25RCF22L 50 SF25RCF22M 1000	SF25RCF45L 50 SF25RCF45M 1000
				33	SF33RCF22L 50 SF33RCF22M 1000	SF33RCF45L 50 SF33RCF45M 1000



PTFE - Polytetra-fluoroethylene



Naturally hydrophobic, the PTFE syringe filters are used for air sterilization or for the preparation of HPLC samples, for the filtration of solvents and corrosive solutions. For aqueous solution filtration, you need to wet the membrane with an adapted solvent such as ethanol or methanol.

Chemical compatibility: pH 1-14

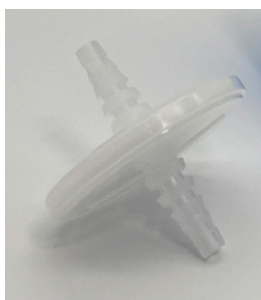
Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm	3.00 µm
Ethyl alcohol flow (mL/min/cm ² @10psi)	8-14	15-29	400-460
Bubble point (psi)	16-25	14-19	-

Diameter (mm)	0.22	0.45	3.00				
	13	SF13PT22C	100	SF13PT45C	100		
		SF13PT22M	1000	SF13PT45M	1000		
	25	SF25PT22L	50	SF25PT45L	50		
		SF25PT22C	100	SF25PT45C	100		
		SF25PT22M	1000	SF25PT45M	1000		
	33	SF33PT22L	50	SF33PT45L	50		
		SF33PT22C	100	SF33PT45C	100		
		SF33PT22M	1000	SF33PT45M	1000		
		13	SF13PT22S	50	SF13PT45S	50	
25		SF25PT22S	50	SF25PT45S	50		
33		SF33PT22S	50	SF33PT45S	50		
	25	SF25PTF22L	50	SF25PTF45L	50	SF25PT300X	10
		SF25PTF22M	1000	SF25PTF45M	1000		
		SF25PTF22C	100	SF25PTF45C	100		
	33	SF33PTF22L	50	SF33PTF45L	50		
		SF33PTF22M	1000	SF33PTF45M	1000		
		SF33PTF22C	100	SF33PTF45C	100		

Packing information:
All packs contain 50 - 100 - 1000 units
Other references upon request

Venting filters

For a greater filtration surface than syringe filters, the venting filters (PTFE membrane, ø 47 mm, sterile) bare hose barb connections that are adapted for the direct connection to flexibles. Thanks to its hydrophobic membrane, it prevents the return of liquids and thus protects the devices.



Pore size (µm) [for ø 25 mm]	0.22 µm	0.45 µm			
Bubble point (psi)	1.2	0.8			
Diameter (mm)	0.22	0.45			
	47	FE47PT22S	25	FE47PT45S	25

TABLE OF CHEMICAL COMPATIBILITY



Recommended use



Limited resistance



Non recommended use



Use to be confirmed (to be tested before use)

Acids	CA	FV	MCE	NY	PES	PTFE	PVDF
Acetic, glacial	✗	✓	+/-	+/-	✓	✓	✓
Acetic 25%	+/-	✓	+/-	+/-	✓	✓	✓
Hydrochloric concentrated	✗	✓	✗	✗	✓	✗	✓
Hydrochloric 25%	✓	✓	✗	+/-	✓	✓	✓
Sulfuric 98%	✗	✓	✗	✗	✗	✓	+/-
Sulfuric 25%	✗	✓	+/-	✗	✓	✓	✓
Nitric 65%	✗	✓	✗	?	✓	✓	+/-
Nitric 25%	✗	?	+/-	✗	+/-	✓	✓
Phosphoric 25%	✓	✓	+/-	✗	?	✓	✓
Trichloroacetic 25%	✗	✓	+/-	✗	?	✓	✓

Alcohols	CA	FV	MCE	NY	PES	PTFE	PVDF
Methanol 98%	✓	✓	✗	✓	✓	✓	✓
Ethanol 98%	✗	✓	✗	+/-	+/-	✓	✓
Ethanol 70%	✓	✓	✓	✓	✓	✓	✓
Isopropanol	✓	✓	+/-	✓	✓	✓	✓
n-Propanol	✓	✓	✓	✓	?	✓	✓
n-Butanol	✓	✓	✓	✓	✓	✓	✓
Benzyl	✗	✓	✓	✓	?	✓	✓
Ethylene glycol	+/-	✓	+/-	✓	✓	✓	✓
Propylene glycol	+/-	✓	✓	✓	✓	?	✓
Glycerol	+/-	✓	✓	+/-	+/-	✓	✓

Ketones	CA	FV	MCE	NY	PES	PTFE	PVDF
Acetone	✗	✓	✗	✗	✗	✓	✗
Cyclohexanone	✗	✓	✗	+/-	✗	✓	✓
Methyl ethyl ketone	✗	✓	?	+/-	✗	✓	✗
Isopropylacetanon	+/-	✓	✗	✓	✗	✓	✗
Methyl isobytyl ketone	✓	✓	✗	✓	?	✓	?

Bases	CA	FV	MCE	NY	PES	PTFE	PVDF
Ammonium	+/-	✓	✓	✓	✗	✓	✓
Sodium hydroxide 25%	✗	✓	+/-	✗	✓	✓	✓

Halogenated hydrocarbons	CA	FV	MCE	NY	PES	PTFE	PVDF
Methylene chloride	✗	✓	+/-	✓	✗	✗	✗
Chloroform	✗	✓	✓	✓	✗	✓	✗
Trichloroethylene	✗	✓	✓	✓	+/-	+/-	✗
Monechloro-benzene	✓	✓	✓	+/-	?	✓	✓
Carbon tetrachloride	?	✓	✗	✓	✓	✓	✗

Hydrocarbons	CA	FV	MCE	NY	PES	PTFE	PVDF
Hexane, Xylene	✗	✓	✓	+/-	✗	✓	✓
Toluene, Benzene	✗	✓	✓	✓	✓	✓	✗
Kerosene, Gasoline	✗	✓	✓	✓	+/-	✓	✓

Oxides Ethers	CA	FV	MCE	NY	PES	PTFE	PVDF
Diethyl ether	+/-	✓	✗	✓	✗	✓	?
Dioxane	✗	✓	✗	✓	✓	✓	+/-
Tetrahydrofuran	✗	✓	✗	✓	✗	✓	✗
Dimethylsulfoxide	✗	✓	✗	✓	✗	✓	✗
Isopropyl ether	✗	✓	✗	+/-	✗	✓	?

Solvents with Nitrogen	CA	FV	MCE	NY	PES	PTFE	PVDF
Dimethyl formamide	✗	✓	✗	✓	✗	✓	✗
Diethylacetamide	✗	✓	✗	✓	?	✓	✗
Pyridine	✗	✓	✗	✓	✗	✓	✓
Acetonitrile	✗	✓	✗	✓	✗	✓	✓

Aqueous solutions	CA	FV	MCE	NY	PES	PTFE	PVDF
Hydrogen peroxide 30%	+/-	✓	?	✓	?	✓	✓
Formalin 30%	+/-	✓	✓	+/-	+/-	✓	✓