



Simply Quality


Greyhound Q-Fil Syringe Filters



YOUR GLOBAL SCIENCE PARTNER

Q Range


- Q-Fil Syringe Filters
- Q-Cap Capillary Columns
- Q-Col HPLC Columns
- Gas Purifiers and Filters
- GC Liners, Septa and Ferrules



SYRINGE FILTERS BY GREYHOUND
Certificate of Conformance • Disposable Syringe Filters

Product	Q-Fil Syringe Filter
Part Number	40-100001
Lot Number	SM280616
Filter Material	Hydrophilic Nylon 0.45µm
Housing Material	Polypropylene
Membrane Diameter	25mm
Test	Specifications
Visual Inspection	Absence of External defects
Luer Lock	Female Luer-Lock Inlet, Male Slip Outlet
Bubble Point	29 psi
Burst Pressure	87 psi
Filtration Area	4.08 cm ²
Holdup Volume	<100µL
Volume Throughput	100mL

This product complies with all Q-Fil Syringe Filter manufacturing specifications and was produced in accordance with ISO 9001 Quality Management System



Greyhound
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Q-Fil Certificate of Conformance

Greyhound

- Your Global Science Partner

As a trusted name in the supply of chromatography consumables and certified reference standards, Greyhound also offers a comprehensive selection of top quality own brand Capillary columns and HPLC columns. This catalogue contains details of the Q-Fil range of Syringe Filters. Other product catalogues are available on request.

These quality products are backed by the guaranteed reliability and technical support which has become synonymous with the name Greyhound.

Visit our website at: www.greyhoundchrom.com for details of our full range of products.

Welcome to a new era in analyte detection and column performance.

Greyhound Q-Fil Syringe Filters

Q-Fil Syringe Filters set the new Quality standard for today's laboratory syringe filters. Manufactured from the highest quality medical grade, high density polypropylene. Q-Fil Syringe Filters provide excellent chemical compatibility with acids, alcohols, bases, ethers, glycols, ketones and oils.

Every colour-coded filter is printed with details of the membrane material and its pore size on the outside of the filter and every box is labelled with the batch number making them ideal for traceability, GLPs and validation purposes.



Why filter your samples for HPLC?

The main source of particle contamination in HPLC columns originate in the sample to be analysed. Therefore, the final preparation step prior to sample injection into the HPLC instrument is to remove any small particulates from the sample by filtration. Removal of the solid materials is very important as they can interfere with the compound of interest and easily clog up the column being used. This will inevitably have a detrimental effect on the performance of the column, i.e. back pressure, peak size, retention time, peak shape. Severe contamination can lead to the column being irreversibly blocked and therefore having to be replaced. Other costs can include instrument downtime, and the loss of valuable samples.

Sample Types

Samples differ in a variety of ways, they may be heavily loaded with fine or coarse particulates, dissolved in aqueous or organic solvents with varying viscosities. To facilitate the most appropriate sample preparation result, filters should be optimised to match the particular requirements of each kind of sample being injected.

Standard Samples

A matrix of 5-10mL is the most common sample volume, with low viscosity, low particle contamination and dissolved in either an organic or an aqueous solvent. Greyhound Q-Fil Regenerated Cellulose Syringe Filters are an excellent choice for such samples. Their inert housing manufactured from high density medical grade virgin polypropylene, complete with the integrated Regenerated Cellulose (RC) membrane has a high chemical resistance against the most common HPLC solvents and is very suitable for aqueous samples. Every batch is HPLC-tested for low extractables. Whilst 0.45µm is the most commonly used membrane porosity, the 0.22µm membrane provides improved purity when using capillary columns or HPLC packings with a particle size of 3µm or less

Demanding Samples

More difficult samples which contain high loads of particulates, high viscosity or unusually high volumes place additional challenges on the user when preparing samples for HPLC analysis. The particles have a tendency to block the filter, high viscosities will decrease the flow rate and high volumes increase the time required to complete the filtration process. These challenges often result in the user applying a greater degree of manual pressure to the process and potentially exceeding the maximum pressure limit of the filter with a subsequent risk of bursting the housing. As a result, the sample will be lost and a potential safety risk can arise if corrosive solvents or harmful chemicals are being filtered. To assist in overcoming these challenges, the use of Q-Fil Syringe Filters with a built in Glass Microfiber pre-filter are recommended. The pre-filter removes the larger particulates from the sample leaving only the smaller particulates to be filtered by the membrane. These filters increase the flow rate through the unit resulting in a higher volume of sample to be filtered and less pressure being required by the user.

Small Volume Samples

Smaller volume samples are often valuable and require special attention. Any loss of the analyte due to adsorption by the filter membrane or housing or a large dead volume can have a detrimental effect on the analysis. Smaller filters of 13mm and 4mm diameter decrease the dead volume to less than 25µL and 8µL respectively making them ideal for smaller volume samples.

Summary

Sample filtration is an important factor in ensuring that HPLC analysis is achieved in an efficient and cost effective way. The extensive range of Q-Fil Syringe Filters have been developed to meet the demands of the analyst and the different sample matrices being used and without losing any of the important sample.

About our Quality Control procedures

- Every batch of filters is manufactured and tested in accordance with strict ISO 9001:2000 quality procedures
- Every individual Q-Fil Syringe Filter is visually inspected to ensure it meets our manufacturing and quality control specifications
- Each batch of filters is tested prior to release for:
 - External Dimensions - Bubble Point - Water Flow Rate - UV Extractables
 - Burst Pressure and compliance - Filter Integrity

Why use Greyhound Q-Fil Syringe Filters?

- Q-Fil Syringe Filters are manufactured in compliance with ISO 9001:2000 quality procedures
- Every box is supplied with a Certificate of Conformance to guarantee its batch to batch quality and performance
- The unique encapsulating process developed for these filters, forces the sample to pass only through the membrane, thus avoiding the possibility of leaks or contamination
- Available in the most popular sizes, porosities and membrane types
- Excellent resistance to all routinely used HPLC solvents
- Filter housings are manufactured from the highest quality medical grade, high density polypropylene with a maximum operating temperature of 135°C
- Extremely low level of extractables for highly sensitive work
- Luer connections fully comply with ISO 594-1

Selecting the right Q-Fil Syringe Filter

- Choose the size of filter based on the volume of sample to be filtered
- Choose the filters porosity based on the size of the potential particulates in the sample. It is important to be aware that the finer the porosity of the membrane the greater the pressure will be required to pass the sample through the filter. A sample containing large quantities of particulates is best filtered using a filter with a built-in glass microfiber pre-filter
- Choose the type of membrane based on the solvent being filtered

30mm Dia

Designed for the largest sample volumes or solvent filtration
 Filtration area 5.39cm²
 Maximum filtration volume <200ml
 Maximum operating pressure 87psi (6.0 bar) at 20°C
 Sample volume <200ml
 Holdup volume <200µl

25mm Dia

Designed for larger sample volumes or solvent filtration
 Filtration area 4.08cm²
 Maximum filtration volume >100ml
 Maximum operating pressure 87psi (6.0 bar) at 20°C
 Sample volume <100ml
 Holdup volume <100µl

13mm Dia

Suitable for most applications
 Filtration area 1.09cm²
 Maximum filtration volume >10ml
 Maximum operating pressure 87psi (6.0 bar) at 20°C
 Sample volume <10ml
 Holdup volume <25µl

4mm Dia

Suitable for smaller volume applications
 Filtration area 0.1cm²
 Maximum filtration volume <2ml
 Maximum operating pressure 75psi (5.0 bar) at 20°C
 Sample volume <2ml
 Holdup volume <8ul



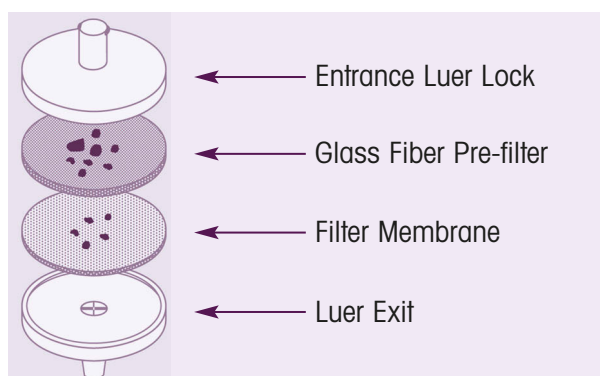
Pore Sizes

Q-Fil Syringe Filters are available in 0.22µm and 0.45µm pore sizes, (other pore sizes are available on request). The 0.22µm filters remove the smallest particulates whilst the 0.45µm filters are designed to remove particulates which would be detrimental to most analytical columns.

Pre-filters have a glass microfiber membrane which is chemically inert and resists most solvents. Q-Fil glass microfiber pre-filters are recommended for removing large particulates from the sample and are ideal for dissolution tests.

Q-Fil Syringe Filters with Glass Microfiber Pre-Filter

- These filters have the same high quality filter membranes and polypropylene housings as our other Q-Fil Syringe Filters, but include a Glass Microfiber (GMF) membrane used as a pre-filter
- The glass microfiber pre-filter is mounted before the microporous filter membrane, eliminating the need for a pre-filtration step, minimising sample loss and prolonging the life of the filter membrane
- Flow rates are increased and the filtrate volume is significantly greater when compared to filters without pre-filters
- Regenerated Cellulose membrane filters with the GMF membrane incorporated as a pre-filter, are particularly useful for tissue culture media filtration, as well as for general biological sample filtration
- These filters are ideal for general laboratory filtration of samples which contain excessive amounts of particulates
- The glass microfiber pre-filter removes the large particulates and prevents premature clogging of the filter membrane



Syringe Filter Membrane Compatibility Chart

Use this information to determine the ability of a specific syringe filter membrane to withstand exposure to solvent. All concentrations are 100% unless noted.

Chemical	Nylon	PTFE	PVDF	PES	CA	RC	PP	GMF
ACIDS								
Acetic, Glacial	LC	C	C	C	IC	C	C	C
Acetic, 25%	C	C	C	C	CA	C	C	C
Hydrochloric, Concentrated	IC	C	C	C	IC	IC	C	C
Hydrochloric, 25%	IC	C	C	C	IC	IC	C	C
Sulphuric, Concentrated	IC	C	IC	IC	IC	IC	C	C
Sulphuric, 25%	IC	C	C	C	IC	LC	C	C
Nitric, Concentrated	IC	C	C	IC	IC	IC	C	LC
Nitric, 25%	IC	C	C	C	IC	IC	C	LC
Phosphoric, 25%	IC	C	ND	ND	CA	LC	C	ND
Formic, 25%	IC	C	ND	ND	LC	C	C	C
Trichloroacetic, 10%	IC	C	ND	ND	CA	C	C	ND
ALCOHOLS								
Methanol, 98%	C	C	C	C	C	C	C	C
Ethanol, 98%	C	C	C	C	C	C	C	C
Ethanol, 70%	IC	C	C	C	C	C	C	C
Isopropanol	C	C	C	C	C	C	C	C
n-Propanol	C	C	C	C	C	C	C	C
Amyl Alcohol (Butanol)	C	C	C	C	C	C	C	C
Benzyl Alcohol	C	C	C	ND	LC	C	C	IC
Ethylene Glycol	C	C	C	C	C	C	C	C
Propylene Glycol	C	C	C	C	LC	C	C	C
Glycerol	C	C	C	C	C	C	C	C
ALKALIS								
Ammonium Hydroxide, 25%	C	C	LC	C	C	LC	C	C
Sodium Hydroxide, 3N	C	C	C	C	IC	LC	C	IC
AMINES AND AMIDES								
Dimethyl Formamide	LC	C	IC	IC	IC	LC	C	C
Diethylacetamide	C	C	ND	ND	IC	C	ND	C
Triethanolamine	C	C	ND	ND	C	C	ND	ND
Aniline	ND	C	ND	ND	IC	C	ND	ND
Pyridine	C	C	IC	IC	IC	C	IC	C
Acetonitrile	C	C	C	LC	IC	C	C	C
ESTERS								
Ethyl Acetate/Methyl Acetate	C	C	C	IC	IC	C	LC	C
Amyl Acetate/Butyl Acetate	C	C	IC	IC	LC	C	LC	C
Propyl Acetate	C	C	IC	IC	LC	C	LC	ND
Propylene Glycol Acetate	ND	C	ND	IC	IC	C	C	ND
2-Ethoxyethyl Acetate	ND	C	ND	IC	LC	C	ND	ND
Methyl Cellusolve	ND	C	ND	IC	IC	C	C	C

Chemical	Nylon	PTFE	PVDF	PES	CA	RC	PP	GMF
ESTERS								
Benzyl Benzoate	C	C	ND	IC	C	C	ND	ND
Isopropyl Myristate	C	C	ND	IC	C	C	ND	ND
Tricresyl Phosphate	ND	C	ND	IC	C	C	ND	ND
HALOGENATED HYDROCARBONS								
Methylene Chloride	LC	C	C	IC	IC	C	LC	C
Chloroform	C	C	C	IC	IC	C	LC	C
Trichloroethylene	C	C	C	IC	C	C	C	C
Chlorobenzene	C	C	C	IC	C	C	C	C
Freon	C	C	C	IC	C	C	C	C
Carbon Tetrachloride	C	C	C	IC	LC	C	LC	C
HYDROCARBONS								
Hexane/Xylene	C	C	C	IC	C	C	IC	C
Toluene/Benzene	C	C	C	IC	C	C	IC	C
Kerosene/Gasoline	C	C	C	LC	C	C	LC	ND
Tetralin/Decalin	ND	C	C	ND	C	C	ND	ND
KETONES								
Acetone	C	C	IC	IC	IC	C	C	C
Cyclohexanone	C	C	IC	IC	IC	C	C	C
Methyl Ethyl Ketone	C	C	IC	IC	LC	C	LC	C
Isopropylacetone	C	C	IC	IC	C	C	ND	C
Methyl Isobutyl Ketone	ND	C	IC	IC	ND	C	LC	C
ORGANIC OXIDES								
Ethyl Ether	C	C	C	C	C	C	LC	ND
Dioxane	C	C	LC	IC	I	C	C	C
Tetrahydrofuran	C	C	LC	IC	I	C	C	C
Triethanolamine	C	C	ND	ND	C	C	ND	ND
Dimethylsulfoxide (DMSO)	C	C	IC	IC	I	C	C	C
Isopropyl Ether	ND	C	C	C	C	C	C	ND
MISCELLANEOUS								
Phenol, Aqueous Solution 10%	ND	C	LC	IC	IC	IC	C	C
Formaldehyde Aqueous Solution 30%	C	C	C	C	C	LC	C	C
Hydrogen Peroxide 30%	C	C	ND	ND	C	C	ND	ND
Silicone Oil/Mineral Oil	ND	C	C	C	C	C	C	C

LEGEND

C Compatible
 LC Limited Compatibility (membrane may swell and shrink)
 IC Incompatible (not recommended)
 ND No compatibility data currently available
 PTFE Polytetrafluoroethylene (Teflon®)

PVDF Polyvinylidene
 PES Polyethersulfone
 CA Cellulose Acetate
 RC Regenerated Cellulose
 PP Polypropylene
 GMF Glass MicroFibre

NYLON 66

- Hydrophilic membrane
- Excellent for HPLC samples and general filtration
- Compatible with organic and aqueous liquids
- Good solvent resistance and high protein retention
- Strong mechanical stability
- Maximum operating temperature 100°C



Not suitable for use with strong acids or bases, halogenated hydrocarbons or protein

Cat. No.	Description	Colour	Pack
40-100007	Nylon Syringe Filters, 0.22µm, 4mm	Clear	100
40-100008	Nylon Syringe Filters, 0.45µm, 4mm	Clear	100
40-100004	Nylon Syringe Filters, 0.22µm, 13mm	Blue	100
40-100003	Nylon Syringe Filters, 0.45µm, 13mm	Blue	100
40-100002	Nylon Syringe Filters, 0.22µm, 25mm	Blue	100
40-100001	Nylon Syringe Filters, 0.45µm, 25mm	Blue	100
40-100006	Nylon Syringe Filters, 0.22µm, 30mm	Blue	100
40-100005	Nylon Syringe Filters, 0.45µm, 30mm	Blue	100
40-100004-PF	Nylon Syringe Filters, 0.22µm, 13mm, with pre-filter	Blue	100
40-100003-PF	Nylon Syringe Filters, 0.45µm, 13mm, with pre-filter	Blue	100
40-100002-PF	Nylon Syringe Filters, 0.22µm, 25mm, with pre-filter	Blue	100
40-100001-PF	Nylon Syringe Filters, 0.45µm, 25mm, with pre-filter	Blue	100
40-100006-PF	Nylon Syringe Filters, 0.22µm, 30mm, with pre-filter	Blue	100
40-100005-PF	Nylon Syringe Filters, 0.45µm, 30mm, with pre-filter	Blue	100
40-100004-S	Nylon Syringe Filters, 0.22µm, 13mm, Sterile	Blue	100
40-100003-S	Nylon Syringe Filters, 0.45µm, 13mm, Sterile	Blue	100
40-100002-S	Nylon Syringe Filters, 0.22µm, 25mm, Sterile	Blue	100
40-100001-S	Nylon Syringe Filters, 0.45µm, 25mm, Sterile	Blue	100
40-100006-S	Nylon Syringe Filters, 0.22µm, 30mm, Sterile	Blue	100
40-100005-S	Nylon Syringe Filters, 0.45µm, 30mm, Sterile	Blue	100

CELLULOSE ACETATE

- Hydrophilic membrane
- Ideal for aqueous based samples, tissue culture media filtration and sensitive biological samples
- Very low protein binding membrane, lower than PVDF and PES membranes
- Lower chemical resistance than Regenerated Cellulose
- Maximum operating temperature 110°C

Not suitable for use with organic solvents



Cat. No.	Description	Colour	Pack
40-100330	Cellulose Acetate Syringe Filters, 0.22µm, 4mm	Clear	100
40-100331	Cellulose Acetate Syringe Filters, 0.45µm, 4mm	Clear	100
40-100063	Cellulose Acetate Syringe Filters, 0.22µm, 13mm	Orange	100
40-100062	Cellulose Acetate Syringe Filters, 0.45µm, 13mm	Orange	100
40-100061	Cellulose Acetate Syringe Filters, 0.22µm, 25mm	Orange	100
40-100060	Cellulose Acetate Syringe Filters, 0.45µm, 25mm	Orange	100
40-100065	Cellulose Acetate Syringe Filters, 0.22µm, 30mm	Orange	100
40-100064	Cellulose Acetate Syringe Filters, 0.45µm, 30mm	Orange	100
40-100063-PF	Cellulose Acetate Syringe Filters, 0.22µm, 13mm, with pre-filter	Orange	100
40-100062-PF	Cellulose Acetate Syringe Filters, 0.45µm, 13mm, with pre-filter	Orange	100
40-100061-PF	Cellulose Acetate Syringe Filters, 0.22µm, 25mm, with pre-filter	Orange	100
40-100060-PF	Cellulose Acetate Syringe Filters, 0.45µm, 25mm, with pre-filter	Orange	100
40-100065-PF	Cellulose Acetate Syringe Filters, 0.22µm, 30mm, with pre-filter	Orange	100
40-100064-PF	Cellulose Acetate Syringe Filters, 0.45µm, 30mm, with pre-filter	Orange	100
40-100063-S	Cellulose Acetate Syringe Filters, 0.22µm, 13mm, Sterile	Orange	100
40-100062-S	Cellulose Acetate Syringe Filters, 0.45µm, 13mm, Sterile	Orange	100
40-100061-S	Cellulose Acetate Syringe Filters, 0.22µm, 25mm, Sterile	Orange	100
40-100060-S	Cellulose Acetate Syringe Filters, 0.45µm, 25mm, Sterile	Orange	100
40-100065-S	Cellulose Acetate Syringe Filters, 0.22µm, 30mm, Sterile	Orange	100
40-100064-S	Cellulose Acetate Syringe Filters, 0.45µm, 30mm, Sterile	Orange	100

PTFE (HYDROPHOBIC)

- Hydrophobic membrane resistant to strong acids, aggressive solvents, alcohols, bases and aromatics
- Ideal for the filtration and degassing of chromatography solvents and for extremely basic mobile phase solutions
- Very low extractables
- Mechanically strong
- Excellent thermal stability
- Maximum operating temperature 100°C



Cat. No.	Description	Colour	Pack
40-100300	PTFE Hydrophobic Syringe Filters, 0.22µm, 4mm	Clear	100
40-100301	PTFE Hydrophobic Syringe Filters, 0.45µm, 4mm	Clear	100
40-100017	PTFE Hydrophobic Syringe Filters, 0.22µm, 13mm	Red	100
40-100016	PTFE Hydrophobic Syringe Filters, 0.45µm, 13mm	Red	100
40-100015	PTFE Hydrophobic Syringe Filters, 0.22µm, 25mm	Red	100
40-100014	PTFE Hydrophobic Syringe Filters, 0.45µm, 25mm	Red	100
40-100019	PTFE Hydrophobic Syringe Filters, 0.22µm, 30mm	Red	100
40-100018	PTFE Hydrophobic Syringe Filters, 0.45µm, 30mm	Red	100
40-100017-PF	PTFE Hydrophobic Syringe Filters, 0.22µm, 13mm, with pre-filter	Red	100
40-100016-PF	PTFE Hydrophobic Syringe Filters, 0.45µm, 13mm, with pre-filter	Red	100
40-100015-PF	PTFE Hydrophobic Syringe Filters, 0.22µm, 25mm, with pre-filter	Red	100
40-100014-PF	PTFE Hydrophobic Syringe Filters, 0.45µm, 25mm, with pre-filter	Red	100
40-100019-PF	PTFE Hydrophobic Syringe Filters, 0.22µm, 30mm, with pre-filter	Red	100
40-100018-PF	PTFE Hydrophobic Syringe Filters, 0.45µm, 30mm, with pre-filter	Red	100
40-100017-S	PTFE Hydrophobic Syringe Filters, 0.22µm, 13mm, Sterile	Red	100
40-100016-S	PTFE Hydrophobic Syringe Filters, 0.45µm, 13mm, Sterile	Red	100
40-100015-S	PTFE Hydrophobic Syringe Filters, 0.22µm, 25mm, Sterile	Red	100
40-100014-S	PTFE Hydrophobic Syringe Filters, 0.45µm, 25mm, Sterile	Red	100
40-100019-S	PTFE Hydrophobic Syringe Filters, 0.22µm, 30mm, Sterile	Red	100
40-100018-S	PTFE Hydrophobic Syringe Filters, 0.45µm, 30mm, Sterile	Red	100

PTFE (HYDROPHILIC)

- Hydrophilic membrane compatible with aqueous, organic solvents, strong acids and alkalis
- Mechanically strong
- Excellent thermal stability
- Low protein binding
- Maximum operating temperature 100°C



Cat. No.	Description	Colour	Pack
40-100310	PTFE Hydrophilic Syringe Filters, 0.22µm, 4mm	Clear	100
40-100311	PTFE Hydrophilic Syringe Filters, 0.45µm, 4mm	Clear	100
40-100312	PTFE Hydrophilic Syringe Filters, 0.22µm, 13mm	Red	100
40-100313	PTFE Hydrophilic Syringe Filters, 0.45µm, 13mm	Red	100
40-100314	PTFE Hydrophilic Syringe Filters, 0.22µm, 25mm	Red	100
40-100315	PTFE Hydrophilic Syringe Filters, 0.45µm, 25mm	Red	100
40-100316	PTFE Hydrophilic Syringe Filters, 0.22µm, 30mm	Red	100
40-100317	PTFE Hydrophilic Syringe Filters, 0.45µm, 30mm	Red	100
40-100312-PF	PTFE Hydrophilic Syringe Filters, 0.22µm, 13mm, with pre-filter	Red	100
40-100313-PF	PTFE Hydrophilic Syringe Filters, 0.45µm, 13mm, with pre-filter	Red	100
40-100314-PF	PTFE Hydrophilic Syringe Filters, 0.22µm, 25mm, with pre-filter	Red	100
40-100315-PF	PTFE Hydrophilic Syringe Filters, 0.45µm, 25mm, with pre-filter	Red	100
40-100316-PF	PTFE Hydrophilic Syringe Filters, 0.22µm, 30mm, with pre-filter	Red	100
40-100317-PF	PTFE Hydrophilic Syringe Filters, 0.45µm, 30mm, with pre-filter	Red	100
40-100312-S	PTFE Hydrophilic Syringe Filters, 0.22µm, 13mm, Sterile	Red	100
40-100313-S	PTFE Hydrophilic Syringe Filters, 0.45µm, 13mm, Sterile	Red	100
40-100314-S	PTFE Hydrophilic Syringe Filters, 0.22µm, 25mm, Sterile	Red	100
40-100315-S	PTFE Hydrophilic Syringe Filters, 0.45µm, 25mm, Sterile	Red	100
40-100316-S	PTFE Hydrophilic Syringe Filters, 0.22µm, 30mm, Sterile	Red	100
40-100317-S	PTFE Hydrophilic Syringe Filters, 0.45µm, 30mm, Sterile	Red	100

PVDF (HYDROPHOBIC)

- Polyvinylidene difluoride membrane, hydrophobic
- Resistant to solvents, exhibits low levels of extractables
- Low protein binding membrane, can be used with proteins and peptides
- Suitable for filtration of aqueous and organic solvents
- Ideal for HPLC and general biological filtration
- Maximum operating temperature 110°C



Cat. No.	Description	Colour	Pack
40-100360	PVDF Hydrophobic Syringe Filters, 0.22µm, 4mm	Clear	100
40-100361	PVDF Hydrophobic Syringe Filters, 0.45µm, 4mm	Clear	100
40-100362	PVDF Hydrophobic Syringe Filters, 0.22µm, 13mm	Yellow	100
40-100363	PVDF Hydrophobic Syringe Filters, 0.45µm, 13mm	Yellow	100
40-100364	PVDF Hydrophobic Syringe Filters, 0.22µm, 25mm	Yellow	100
40-100365	PVDF Hydrophobic Syringe Filters, 0.45µm, 25mm	Yellow	100
40-100366	PVDF Hydrophobic Syringe Filters, 0.22µm, 30mm	Yellow	100
40-100367	PVDF Hydrophobic Syringe Filters, 0.45µm, 30mm	Yellow	100
40-100362-PF	PVDF Hydrophobic Syringe Filters, 0.22µm, 13mm, with pre-filter	Yellow	100
40-100363-PF	PVDF Hydrophobic Syringe Filters, 0.45µm, 13mm, with pre-filter	Yellow	100
40-100364-PF	PVDF Hydrophobic Syringe Filters, 0.22µm, 25mm, with pre-filter	Yellow	100
40-100365-PF	PVDF Hydrophobic Syringe Filters, 0.45µm, 25mm, with pre-filter	Yellow	100
40-100366-PF	PVDF Hydrophobic Syringe Filters, 0.22µm, 30mm, with pre-filter	Yellow	100
40-100367-PF	PVDF Hydrophobic Syringe Filters, 0.45µm, 30mm, with pre-filter	Yellow	100
40-100362-S	PVDF Hydrophobic Syringe Filters, 0.22µm, 13mm, Sterile	Yellow	100
40-100363-S	PVDF Hydrophobic Syringe Filters, 0.45µm, 13mm, Sterile	Yellow	100
40-100364-S	PVDF Hydrophobic Syringe Filters, 0.22µm, 25mm, Sterile	Yellow	100
40-100365-S	PVDF Hydrophobic Syringe Filters, 0.45µm, 25mm, Sterile	Yellow	100
40-100366-S	PVDF Hydrophobic Syringe Filters, 0.22µm, 30mm, Sterile	Yellow	100
40-100367-S	PVDF Hydrophobic Syringe Filters, 0.45µm, 30mm, Sterile	Yellow	100

PVDF (HYDROPHILIC)

- Modified Polyvinylidene difluoride membrane, hydrophilic
- Resistant to solvents, acids and chemicals
- Very low protein and preservative binding
- Clarification and purification of aqueous and organic solvents, acids and bases
- Filtration of antibiotics, diagnostics, serum, culture media and vaccines
- Maximum operating temperature 110°C



Cat. No.	Description	Colour	Pack
40-100320	PVDF Hydrophilic Syringe Filters, 0.22µm, 4mm	Clear	100
40-100321	PVDF Hydrophilic Syringe Filters, 0.45µm, 4mm	Clear	100
40-100033	PVDF Hydrophilic Syringe Filters, 0.22µm, 13mm	Yellow	100
40-100032	PVDF Hydrophilic Syringe Filters, 0.45µm, 13mm	Yellow	100
40-100031	PVDF Hydrophilic Syringe Filters, 0.22µm, 25mm	Yellow	100
40-100030	PVDF Hydrophilic Syringe Filters, 0.45µm, 25mm	Yellow	100
40-100035	PVDF Hydrophilic Syringe Filters, 0.22µm, 30mm	Yellow	100
40-100034	PVDF Hydrophilic Syringe Filters, 0.45µm, 30mm	Yellow	100
40-100033-PF	PVDF Hydrophilic Syringe Filters, 0.22µm, 13mm, with pre-filter	Yellow	100
40-100032-PF	PVDF Hydrophilic Syringe Filters, 0.45µm, 13mm, with pre-filter	Yellow	100
40-100031-PF	PVDF Hydrophilic Syringe Filters, 0.22µm, 25mm, with pre-filter	Yellow	100
40-100030-PF	PVDF Hydrophilic Syringe Filters, 0.45µm, 25mm, with pre-filter	Yellow	100
40-100035-PF	PVDF Hydrophilic Syringe Filters, 0.22µm, 30mm, with pre-filter	Yellow	100
40-100034-PF	PVDF Hydrophilic Syringe Filters, 0.45µm, 30mm, with pre-filter	Yellow	100
40-100033-S	PVDF Hydrophilic Syringe Filters, 0.22µm, 13mm, Sterile	Yellow	100
40-100032-S	PVDF Hydrophilic Syringe Filters, 0.45µm, 13mm, Sterile	Yellow	100
40-100031-S	PVDF Hydrophilic Syringe Filters, 0.22µm, 25mm, Sterile	Yellow	100
40-100030-S	PVDF Hydrophilic Syringe Filters, 0.45µm, 25mm, Sterile	Yellow	100
40-100035-S	PVDF Hydrophilic Syringe Filters, 0.22µm, 30mm, Sterile	Yellow	100
40-100034-S	PVDF Hydrophilic Syringe Filters, 0.45µm, 30mm, Sterile	Yellow	100

POLYPROPYLENE

- Hydrophobic, high resistance to solvents
- Wide range of chemical compatibility to organic solvents
- Ideal for biological sample filtration
- Low protein binding
- Ideal for chromatography protein analysis and biological sample filtration
- Suitable for acids and bases and general HPLC analysis
- Maximum operating temperature 110°C



Cat. No.	Description	Colour	Pack
40-100026	Polypropylene Syringe Filters, 0.22µm, 4mm	Purple	100
40-100027	Polypropylene Syringe Filters, 0.45µm, 4mm	Purple	100
40-100023	Polypropylene Syringe Filters, 0.22µm, 13mm	Purple	100
40-100022	Polypropylene Syringe Filters, 0.45µm, 13mm	Purple	100
40-100021	Polypropylene Syringe Filters, 0.22µm, 25mm	Purple	100
40-100020	Polypropylene Syringe Filters, 0.45µm, 25mm	Purple	100
40-100025	Polypropylene Syringe Filters, 0.22µm, 30mm	Purple	100
40-100024	Polypropylene Syringe Filters, 0.45µm, 30mm	Purple	100
40-100023-S	Polypropylene Syringe Filters, 0.22µm, 13mm, Sterile	Purple	100
40-100022-S	Polypropylene Syringe Filters, 0.45µm, 13mm, Sterile	Purple	100
40-100021-S	Polypropylene Syringe Filters, 0.22µm, 25mm, Sterile	Purple	100
40-100020-S	Polypropylene Syringe Filters, 0.45µm, 25mm, Sterile	Purple	100
40-100025-S	Polypropylene Syringe Filters, 0.22µm, 30mm, Sterile	Purple	100
40-100024-S	Polypropylene Syringe Filters, 0.45µm, 30mm, Sterile	Purple	100

POLYETHERSULFONE

- Hydrophilic membrane
- Very low protein and nucleotic acid binding
- Provides high flow rates and good throughput volume
- Best choice for tissue culture work
- Very low extractables
- Mechanically strong membrane, suitable for use with strong bases, alcohols and resistive proteins
- Excellent flow rates
- Maximum operating temperature 100°C



Cat. No.	Description	Colour	Pack
40-100340	Polyethersulfone Syringe Filters, 0.22µm, 4mm	Clear	100
40-100341	Polyethersulfone Syringe Filters, 0.45µm, 4mm	Clear	100
40-100053	Polyethersulfone Syringe Filters, 0.22µm, 13mm	Dark Green	100
40-100052	Polyethersulfone Syringe Filters, 0.45µm, 13mm	Dark Green	100
40-100051	Polyethersulfone Syringe Filters, 0.22µm, 25mm	Dark Green	100
40-100050	Polyethersulfone Syringe Filters, 0.45µm, 25mm	Dark Green	100
40-100055	Polyethersulfone Syringe Filters, 0.22µm, 30mm	Dark Green	100
40-100054	Polyethersulfone Syringe Filters, 0.45µm, 30mm	Dark Green	100
40-100053-PF	Polyethersulfone Syringe Filters, 0.22µm, 13mm, with pre-filter	Dark Green	100
40-100052-PF	Polyethersulfone Syringe Filters, 0.45µm, 13mm, with pre-filter	Dark Green	100
40-100051-PF	Polyethersulfone Syringe Filters, 0.22µm, 25mm, with pre-filter	Dark Green	100
40-100050-PF	Polyethersulfone Syringe Filters, 0.45µm, 25mm, with pre-filter	Dark Green	100
40-100055-PF	Polyethersulfone Syringe Filters, 0.22µm, 30mm, with pre-filter	Dark Green	100
40-100054-PF	Polyethersulfone Syringe Filters, 0.45µm, 30mm, with pre-filter	Dark Green	100
40-100053-S	Polyethersulfone Syringe Filters, 0.22µm, 13mm, Sterile	Dark Green	100
40-100052-S	Polyethersulfone Syringe Filters, 0.45µm, 13mm, Sterile	Dark Green	100
40-100051-S	Polyethersulfone Syringe Filters, 0.22µm, 25mm, Sterile	Dark Green	100
40-100050-S	Polyethersulfone Syringe Filters, 0.45µm, 25mm, Sterile	Dark Green	100
40-100055-S	Polyethersulfone Syringe Filters, 0.22µm, 30mm, Sterile	Dark Green	100
40-100054-S	Polyethersulfone Syringe Filters, 0.45µm, 30mm, Sterile	Dark Green	100

REGENERATED CELLULOSE

- Hydrophilic, solvent resistant
- Very low protein binding
- Compatible with most common HPLC solvents
- Compatible with aqueous samples in pH range 3 to 12
- Suitable for biological samples and important for protein recuperation
- Best choice for low non-specific binding applications, tissue culture media filtration and biological sample filtration
- Maximum operating temperature 110°C



Not suitable for use with strong acids, chloroform or THF

Cat. No.	Description	Colour	Pack
40-100043	Regenerated Cellulose Syringe Filters, 0.22µm, 13mm	Light Blue	100
40-100042	Regenerated Cellulose Syringe Filters, 0.45µm, 13mm	Light Blue	100
40-100041	Regenerated Cellulose Syringe Filters, 0.22µm, 25mm	Light Blue	100
40-100040	Regenerated Cellulose Syringe Filters, 0.45µm, 25mm	Light Blue	100
40-100046	Regenerated Cellulose Syringe Filters, 0.22µm, 30mm	Light Blue	100
40-100045	Regenerated Cellulose Syringe Filters, 0.45µm, 30mm	Light Blue	100
40-100043-PF	Regenerated Cellulose Syringe Filters, 0.22µm, 13mm, with pre-filter	Light Blue	100
40-100042-PF	Regenerated Cellulose Syringe Filters, 0.45µm, 13mm, with pre-filter	Light Blue	100
40-100041-PF	Regenerated Cellulose Syringe Filters, 0.22µm, 25mm, with pre-filter	Light Blue	100
40-100040-PF	Regenerated Cellulose Syringe Filters, 0.45µm, 25mm, with pre-filter	Light Blue	100
40-100046-PF	Regenerated Cellulose Syringe Filters, 0.22µm, 30mm, with pre-filter	Light Blue	100
40-100045-PF	Regenerated Cellulose Syringe Filters, 0.45µm, 30mm, with pre-filter	Light Blue	100
40-100043-S	Regenerated Cellulose Syringe Filters, 0.22µm, 13mm, Sterile	Light Blue	100
40-100042-S	Regenerated Cellulose Syringe Filters, 0.45µm, 13mm, Sterile	Light Blue	100
40-100041-S	Regenerated Cellulose Syringe Filters, 0.22µm, 25mm, Sterile	Light Blue	100
40-100040-S	Regenerated Cellulose Syringe Filters, 0.45µm, 25mm, Sterile	Light Blue	100
40-100046-S	Regenerated Cellulose Syringe Filters, 0.22µm, 30mm, Sterile	Light Blue	100
40-100045-S	Regenerated Cellulose Syringe Filters, 0.45µm, 30mm, Sterile	Light Blue	100

MIXED CELLULOSE ESTERS (MCE)

- A mixture of nitrocellulose and cellulose acetate
- Hydrophilic membrane
- Suitable for cleaning or sterilising many aqueous solutions
- Ideal for biological samples or culture media
- Maximum operating temperature 100°C



Cat. No.	Description	Colour	Pack
40-100073	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 13mm	Light Green	100
40-100072	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 13mm	Light Green	100
40-100071	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 25mm	Light Green	100
40-100070	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 25mm	Light Green	100
40-100075	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 30mm	Light Green	100
40-100074	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 30mm	Light Green	100
40-100073-PF	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 13mm, with pre-filter	Light Green	100
40-100072-PF	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 13mm, with pre-filter	Light Green	100
40-100071-PF	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 25mm, with pre-filter	Light Green	100
40-100070-PF	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 25mm, with pre-filter	Light Green	100
40-100075-PF	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 30mm, with pre-filter	Light Green	100
40-100074-PF	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 30mm, with pre-filter	Light Green	100
40-100073-S	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 13mm, Sterile	Light Green	100
40-100072-S	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 13mm, Sterile	Light Green	100
40-100071-S	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 25mm, Sterile	Light Green	100
40-100070-S	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 25mm, Sterile	Light Green	100
40-100075-S	Mixed Cellulose Ester (MCE) Syringe Filters, 0.22µm, 30mm, Sterile	Light Green	100
40-100074-S	Mixed Cellulose Ester (MCE) Syringe Filters, 0.45µm, 30mm, Sterile	Light Green	100

GLASS MICROFIBER (GMF)

- Commonly used as pre-filters to remove large particulates and extend the loading capacity of the filter membrane
- Ideal for dissolution tests
- Maximum operating temperature 110°C



Cat. No.	Description	Colour	Pack
40-100350	Glass Fiber Syringe Filters, 0.7µm 13mm	White	100
40-100351	Glass Fiber Syringe Filters, 1.2µm 13mm	White	100
40-100352	Glass Fiber Syringe Filters, 0.7µm 25mm	White	100
40-100353	Glass Fiber Syringe Filters, 1.2µm 25mm	White	100
40-100354	Glass Fiber Syringe Filters, 0.7µm 30mm	White	100
40-100355	Glass Fiber Syringe Filters, 1.2µm 30mm	White	100
40-100350-S	Glass Fiber Syringe Filters, 0.7µm 13mm, Sterile	White	100
40-100351-S	Glass Fiber Syringe Filters, 1.2µm 13mm, Sterile	White	100
40-100352-S	Glass Fiber Syringe Filters, 0.7µm 25mm, Sterile	White	100
40-100353-S	Glass Fiber Syringe Filters, 1.2µm 25mm, Sterile	White	100
40-100354-S	Glass Fiber Syringe Filters, 0.7µm 30mm, Sterile	White	100
40-100355-S	Glass Fiber Syringe Filters, 1.2µm 30mm, Sterile	White	100

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