



Simply Quality

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## Greyhound Q-Fil Syringe Filters

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**YOUR GLOBAL SCIENCE PARTNER**

# Q-Range

- Q-Fil Syringe Filters
- Q-Cap Capillary Columns
- Q-Col HPLC Columns
- Septa, Ferrules, Accessories

## 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.

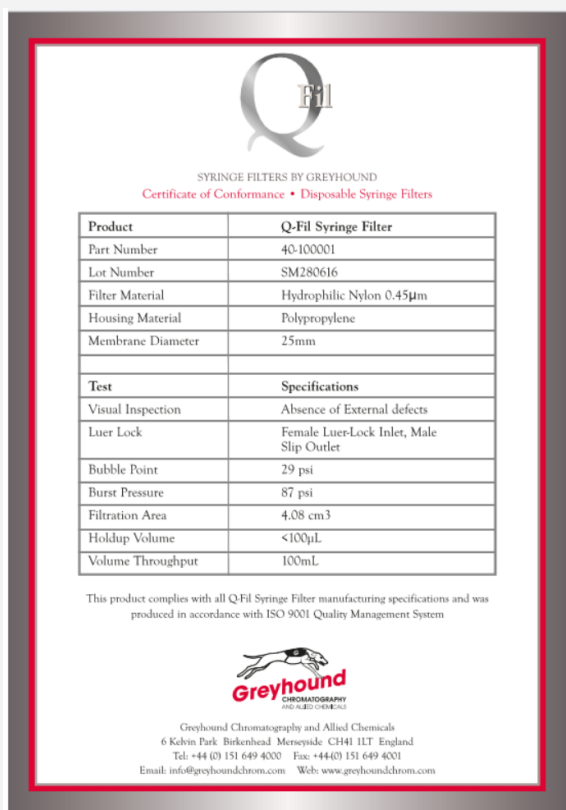
Visit our website at: [www.greyhoundchrom.com](http://www.greyhoundchrom.com) for details of our full range of products.

**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.



**Q-Fil Certificate of Conformance**



## 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 0-Fit 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 9001:2015 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?

- 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
- 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 the filter based on the volume of sample to be filtered
- Choose the filter 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

**33mm Dia**

Designed for the largest sample volumes or solvent filtration  
Acrylic housings (for hydrophilic membranes)  
Filtration area  $4.5\text{cm}^3$   
Maximum filtration volume 150ml  
Maximum operating pressure 87psi (6.0 bar) at 20°C.  
Sample volume 150ml  
Holdup volume <150μl

**30mm Dia**

Designed for the largest sample volumes or solvent filtration  
Polypropylene housings  
Filtration area  $5.39\text{cm}^3$   
Maximum filtration volume 200ml  
Maximum operating pressure 87psi (6.0 bar) at 20°C.  
Sample volume <200ml  
Holdup volume <200μl

**25mm Dia**

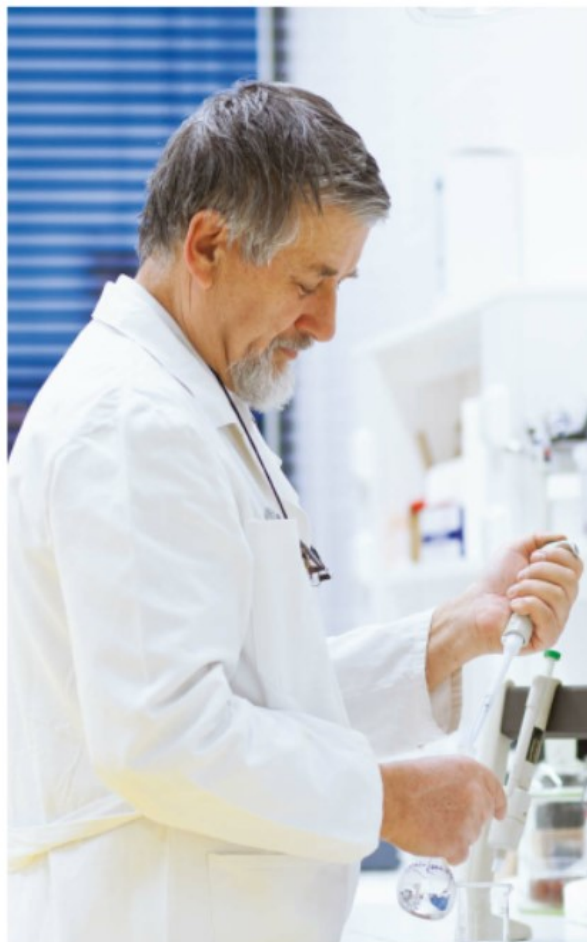
Designed for larger sample volumes or solvent filtration  
Polypropylene housings  
Filtration area  $4.08\text{cm}^3$   
Maximum filtration volume >100ml  
Maximum operating pressure 87psi (6.0 bar) at 20°C.  
Sample volume <100ml  
Holdup volume <100μl

**13mm Dia**

Designed for most applications  
Polypropylene housings  
Filtration area  $1.09\text{cm}^3$   
Maximum filtration volume >10ml  
Maximum operating pressure 87psi (6.0 bar) at 20°C.  
Sample volume <10ml  
Holdup volume <25μl

**4mm Dia**

Designed for smaller volume applications  
Polypropylene housings  
Filtration area  $0.1\text{cm}^3$   
Maximum filtration volume <2ml  
Maximum operating pressure 75psi (5.0 bar) at 20°C.  
Sample volume <2ml  
Holdup volume <8μl





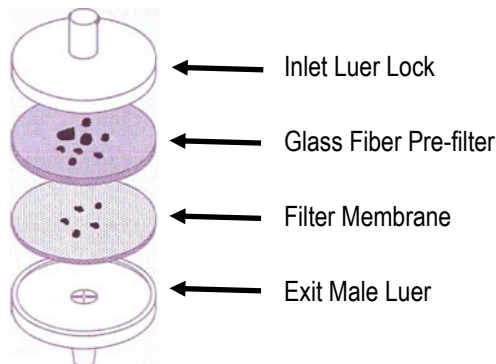
## Pore Sizes

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 membrane filter to withstand exposure to solvent.

All concentrations are 100% unless noted.

Chemical	Nylon	PTFE	PVDF	PES	CA	RC	PP	GMF
<b>ACIDS</b>								
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
<b>ALCOHOLS</b>								
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
<b>ALKALIS</b>								
Ammonium Hydroxide, 25%	C	C	LC	C	C	LC	C	C
Sodium Hydroxide, 3N	C	C	C	C	IC	LC	C	IC
<b>AMINES AND AMIDES</b>								
Dimethyl Formamide	LC	C	IC	IC	IC	LC	C	C
Diethyl acetamide	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
<b>ESTERS</b>								
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 Cellosolve	ND	C	ND	IC	IC	C	C	C

Special discounts are available for call-off and bulk orders, please enquire.

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## Syringe Filter Membrane Compatibility Chart

Use this information to determine the ability of a specific membrane filter to withstand exposure to solvent.

All concentrations are 100% unless noted.

Chemical	Nylon	PTFE	PVDF	PES	CA	RC	PP	GMF
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
<b>HALOGENATED HYDROCARBONS</b>								
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
<b>HYDROCARBONS</b>								
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
<b>KETONES</b>								
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
Isopropyl acetone	C	C	IC	IC	C	C	ND	C
Methyl Isobutyl Ketone	ND	C	IC	IC	ND	C	LC	C
<b>ORGANIC OXIDES</b>								
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
Dimethyl sulfoxide (DMSO)	C	C	IC	IC	I	C	C	C
Isopropyl Ether	ND	C	C	C	C	C	C	ND
<b>MISCELLANEOUS</b>								
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	PVDF	Polyvinylidene
LC	Limited Compatibility (membrane may swell and shrink)	PES	Polyether sulfone
IC	Incompatible (not recommended)	CA	Cellulose Acetate
ND	No compatibility data currently available	RC	Regenerated Cellulose
PTFE	Polytetrafluoroethylene (Teflon ®)	PP	Polypropylene
		GMF	Glass Microfibre

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## NYLON

- \* A mixture of nitrocellulose and cellulose acetate
- \* Hydrophilic membrane
- \* Suitable for cleaning or sterilising many aqueous solutions
- \* Ideal for biological samples or culture media
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
Nylon	4mm	0.22µm	No	No	PP	Clear	100	40-100007
Nylon	4mm	0.45µm	No	No	PP	Clear	100	40-100008
Nylon	13mm	0.1µm	No	No	PP	Blue	100	40-100408
Nylon	13mm	0.22µm	No	No	PP	Blue	100	40-100004
Nylon	13mm	0.22µm	Yes	No	PP	Blue	100	40-100004-PF
Nylon	13mm	0.22µm	No	Yes	PP	Blue	100	40-100004-S
Nylon	13mm	0.45µm	No	No	PP	Blue	100	40-100003
Nylon	13mm	0.45µm	Yes	No	PP	Blue	100	40-100003-PF
Nylon	13mm	0.45µm	No	Yes	PP	Blue	100	40-100003-S
Nylon	13mm	0.8µm	No	No	PP	Blue	100	40-100400
Nylon	13mm	1.2µm	No	No	PP	Blue	100	40-100401
Nylon	13mm	3µm	No	No	PP	Blue	100	40-100402
Nylon	13mm	5µm	No	No	PP	Blue	100	40-100403
Nylon	25mm	0.1µm	No	No	PP	Blue	100	40-100409
Nylon	25mm	0.22µm	No	No	PP	Blue	100	40-100002
Nylon	25mm	0.22µm	Yes	No	PP	Blue	100	40-100002-PF
Nylon	25mm	0.22µm	No	Yes	PP	Blue	100	40-100002-S
Nylon	25mm	0.45µm	No	No	PP	Blue	100	40-100001
Nylon	25mm	0.45µm	Yes	No	PP	Blue	100	40-100001-PF
Nylon	25mm	0.45µm	No	Yes	PP	Blue	100	40-100001-S
Nylon	25mm	0.8µm	No	No	PP	Blue	100	40-100404
Nylon	25mm	1.2µm	No	No	PP	Blue	100	40-100405
Nylon	25mm	3µm	No	No	PP	Blue	100	40-100406
Nylon	25mm	5µm	No	No	PP	Blue	100	40-100407
Nylon	30mm	0.22µm	No	No	PP	Blue	100	40-100006
Nylon	30mm	0.22µm	Yes	No	PP	Blue	100	40-100006-PF
Nylon	30mm	0.22µm	No	Yes	PP	Blue	100	40-100006-S
Nylon	30mm	0.45µm	No	No	PP	Blue	100	40-100005
Nylon	30mm	0.45µm	Yes	No	PP	Blue	100	40-100005-PF
Nylon	30mm	0.45µm	No	Yes	PP	Blue	100	40-100005-S

For 50mm Filters see page 17

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**POLYPROPYLENE (PP)**

- \* Hydrophobic
- \* Wide range of chemical compatibility to organic solvents
- \* Low protein binding
- \* Ideal for chromatography protein analysis and biological sample filtration
- \* Suitable for acids, bases and general HPLC analysis
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
PP	4mm	0.22µm	No	No	PP	Purple	100	40-100026
PP	4mm	0.45µm	No	No	PP	Purple	100	40-100027
PP	13mm	0.22µm	No	No	PP	Purple	100	40-100023
PP	13mm	0.22µm	No	Yes	PP	Purple	100	40-100023-S
PP	13mm	0.45µm	No	No	PP	Purple	100	40-100022
PP	13mm	0.45µm	No	Yes	PP	Purple	100	40-100022-S
PP	13mm	0.8µm	No	No	PP	Purple	100	40-100450
PP	13mm	0.8µm	No	Yes	PP	Purple	100	40-100450-S
PP	13mm	1.2µm	No	No	PP	Purple	100	40-100451
PP	13mm	1.2µm	No	Yes	PP	Purple	100	40-100451-S
PP	25mm	0.22µm	No	No	PP	Purple	100	40-100021
PP	25mm	0.22µm	No	Yes	PP	Purple	100	40-100021-S
PP	25mm	0.45µm	No	No	PP	Purple	100	40-100020
PP	25mm	0.45µm	No	Yes	PP	Purple	100	40-100020-S
PP	25mm	0.8µm	No	No	PP	Purple	100	40-100452
PP	25mm	0.8µm	No	Yes	PP	Purple	100	40-100452-S
PP	25mm	1.2µm	No	No	PP	Purple	100	40-100453
PP	25mm	1.2µm	No	Yes	PP	Purple	100	40-100453-S
PP	30mm	0.22µm	No	No	PP	Purple	100	40-100025
PP	30mm	0.22µm	No	Yes	PP	Purple	100	40-100025-S
PP	30mm	0.45µm	No	No	PP	Purple	100	40-100024
PP	30mm	0.45µm	No	Yes	PP	Purple	100	40-100024-S

\* PP: Polypropylene  
MBS: Medical Acrylic

**PTFE - HYDROPHOBIC (PTFE HB)**

- \* 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
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
PTFE HB	4mm	0.22µm	No	No	PP	Clear	100	40-100300
PTFE HB	4mm	0.45µm	No	No	PP	Clear	100	40-100301
PTFE HB	13mm	0.1µm	No	No	PP	Red	100	40-100013
PTFE HB	13mm	0.22µm	No	No	PP	Red	100	40-100017
PTFE HB	13mm	0.22µm	Yes	Yes	PP	Red	100	40-100017-PF
PTFE HB	13mm	0.22µm	No	Red	PP	Red	100	40-100017-S
PTFE HB	13mm	0.45µm	No	No	PP	Red	100	40-100016
PTFE HB	13mm	0.45µm	Yes	Yes	PP	Red	100	40-100016-PF
PTFE HB	13mm	0.45µm	No	Red	PP	Red	100	40-100016-S
PTFE HB	13mm	1.2µm	No	No	PP	Red	100	40-100370
PTFE HB	13mm	3µm	No	No	PP	Red	100	40-100371
PTFE HB	13mm	5µm	No	No	PP	Red	100	40-100372
PTFE HB	25mm	0.1µm	No	No	PP	Red	100	40-100373
PTFE HB	25mm	0.22µm	No	No	PP	Red	100	40-100015
PTFE HB	25mm	0.22µm	Yes	Yes	PP	Red	100	40-100015-PF
PTFE HB	25mm	0.22µm	No	Red	PP	Red	100	40-100015-S
PTFE HB	25mm	0.45µm	No	No	PP	Red	100	40-100014
PTFE HB	25mm	0.45µm	Yes	Yes	PP	Red	100	40-100014-PF
PTFE HB	25mm	0.45µm	No	Red	PP	Red	100	40-100014-S
PTFE HB	25mm	1.2µm	No	No	PP	Red	100	40-100374
PTFE HB	25mm	3µm	No	No	PP	Red	100	40-100375
PTFE HB	25mm	5µm	No	No	PP	Red	100	40-100376
PTFE HB	30mm	0.22µm	No	No	PP	Red	100	40-100019
PTFE HB	30mm	0.22µm	Yes	Yes	PP	Red	100	40-100019-PF
PTFE HB	30mm	0.22µm	No	Red	PP	Red	100	40-100019-S
PTFE HB	30mm	0.45µm	No	No	PP	Red	100	40-100018
PTFE HB	30mm	0.45µm	Yes	Yes	PP	Red	100	40-100018-PF
PTFE HB	30mm	0.45µm	No	Red	PP	Red	100	40-100018-S

For 50mm Filters see page 17

**PTFE - HYDROPHILIC (PTFE HL)**

- \* Hydrophilic membrane compatible with aqueous, organic solvents, strong acids and alkalis
- \* Mechanically strong
- \* Excellent thermal stability
- \* Low protein binding
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
PTFE HL	4mm	0.22µm	No	No	PP	Red	100	40-100310
PTFE HL	4mm	0.45µm	No	No	PP	Red	100	40-100311
PTFE HL	13mm	0.22µm	No	No	PP	Red	100	40-100312
PTFE HL	13mm	0.22µm	Yes	No	PP	Red	100	40-100312-PF
PTFE HL	13mm	0.22µm	No	Yes	PP	Red	100	40-100312-S
PTFE HL	13mm	0.45µm	No	No	PP	Red	100	40-100313
PTFE HL	13mm	0.45µm	Yes	No	PP	Red	100	40-100313-PF
PTFE HL	13mm	0.45µm	No	Yes	PP	Red	100	40-100313-S
PTFE HL	25mm	0.22µm	No	No	PP	Red	100	40-100314
PTFE HL	25mm	0.22µm	Yes	No	PP	Red	100	40-100314-PF
PTFE HL	25mm	0.22µm	No	Yes	PP	Red	100	40-100314-S
PTFE HL	25mm	0.45µm	No	No	PP	Red	100	40-100315
PTFE HL	25mm	0.45µm	Yes	No	PP	Red	100	40-100315-PF
PTFE HL	25mm	0.45µm	No	Yes	PP	Red	100	40-100315-S
PTFE HL	30mm	0.22µm	No	No	PP	Red	100	40-100316
PTFE HL	30mm	0.22µm	Yes	No	PP	Red	100	40-100316-PF
PTFE HL	30mm	0.22µm	No	Yes	PP	Red	100	40-100316-S
PTFE HL	30mm	0.45µm	No	No	PP	Red	100	40-100317
PTFE HL	30mm	0.45µm	Yes	No	PP	Red	100	40-100317-PF
PTFE HL	30mm	0.45µm	No	Yes	PP	Red	100	40-100317-S

\* PP: Polypropylene  
MBS: Medical Acrylic

## CELLULOSE ACETATE (SFCA)

- \* Surfactant free
- \* Hydrophilic membrane
- \* Ideal for aqueous based samples, tissue culture media titration and sensitive biological samples
- \* Very low protein binding membrane, lower than PVDF and PES membranes
- \* Lower chemical resistance than Regenerated Cellulose
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
SFCA	4mm	0.22µm	No	No	PP	Clear	100	40-100330
SFCA	4mm	0.45µm	No	No	PP	Clear	100	40-100331
SFCA	13mm	0.22µm	No	No	PP	Orange	100	40-100063
SFCA	13mm	0.22µm	Yes	No	PP	Orange	100	40-100063-PF
SFCA	13mm	0.22µm	No	Yes	PP	Orange	100	40-100063-S
SFCA	13mm	0.45µm	No	No	PP	Orange	100	40-100062
SFCA	13mm	0.45µm	Yes	No	PP	Orange	100	40-100062-PF
SFCA	13mm	0.45µm	No	Yes	PP	Orange	100	40-100062-S
SFCA	13mm	0.8µm	No	No	PP	Orange	100	40-100382
SFCA	13mm	0.8µm	No	Yes	PP	Orange	100	40-100382-S
SFCA	25mm	0.22µm	No	No	PP	Orange	100	40-100061
SFCA	25mm	0.22µm	Yes	No	PP	Orange	100	40-100061-PF
SFCA	25mm	0.22µm	No	Yes	PP	Orange	50	40-100061-S
SFCA	25mm	0.45µm	No	No	PP	Orange	100	40-100060
SFCA	25mm	0.45µm	Yes	No	PP	Orange	100	40-100060-PF
SFCA	25mm	0.45µm	No	Yes	PP	Orange	50	40-100060-S
SFCA	25mm	0.8µm	No	No	PP	Orange	100	40-100383
SFCA	25mm	0.8µm	No	Yes	PP	Orange	50	40-100383-S
SFCA	30mm	0.22µm	No	No	PP	Orange	100	40-100065
SFCA	30mm	0.22µm	Yes	No	PP	Orange	100	40-100065-PF
SFCA	30mm	0.22µm	No	Yes	PP	Orange	50	40-100065-S
SFCA	30mm	0.45µm	No	No	PP	Orange	100	40-100064
SFCA	30mm	0.45µm	Yes	No	PP	Orange	100	40-100064-PF
SFCA	30mm	0.45µm	No	Yes	PP	Orange	50	40-100064-S
SFCA	30mm	0.8µm	No	No	PP	Orange	100	40-100384
SFCA	30mm	0.8µm	No	Yes	PP	Orange	50	40-100384-S
SFCA	30mm	1.2µm	No	No	PP	Orange	100	40-100385
SFCA	30mm	1.2µm	No	Yes	PP	Orange	50	40-100385-S

\* PP: Polypropylene  
MBS: Medical Acrylic

## CELLULOSE ACETATE (SFCA)

- \* Surfactant free
- \* Hydrophilic membrane
- \* Ideal for aqueous based samples, tissue culture media titration and sensitive biological samples
- \* Very low protein binding membrane, lower than PVDF and PES membranes
- \* Lower chemical resistance than Regenerated Cellulose
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
SFCA	33mm	0.22µm	No	No	MBS	Yellow	100	40-100066
SFCA	33mm	0.22µm	Yes	No	MBS	Yellow	100	40-100066-PF
SFCA	33mm	0.22µm	No	Yes	MBS	Yellow	100	40-100066-S
SFCA	33mm	0.45µm	No	No	MBS	Yellow	100	40-100067
SFCA	33mm	0.45µm	Yes	No	MBS	Yellow	100	40-100067-PF
SFCA	33mm	0.45µm	No	Yes	MBS	Yellow	50	40-100067-S

## GLASS MICROFIBER (GF)

- \* Commonly used as pre-filters to remove particulates and extend the loading capacity of the filter membrane
- \* Ideal for dissolution tests



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
GF	13mm	0.7µm	No	No	PP	Purple	100	40-100350
GF	13mm	0.7µm	No	No	PP	Purple	100	40-100350-S
GF	13mm	1.2µm	No	No	PP	Purple	100	40-100351
GF	13mm	1.2µm	No	No	PP	Purple	100	40-100351-S
GF	25mm	0.7µm	No	No	PP	Purple	100	40-100352
GF	25mm	0.7µm	No	No	PP	Purple	100	40-100352-S
GF	25mm	1.2µm	No	No	PP	Purple	100	40-100353
GF	25mm	1.2µm	No	No	PP	Purple	100	40-100353-S
GF	30mm	0.7µm	No	No	PP	Purple	100	40-100354
GF	30mm	0.7µm	No	No	PP	Purple	100	40-100354-S
GF	30mm	1.2µm	No	No	PP	Purple	100	40-100355
GF	30mm	1.2µm	No	No	PP	Purple	100	40-100355-S



**PVDF - HYDROPHOBIC (PVDF HB)**

- \* 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
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
PVDF HB	4mm	0.22µm	No	No	PP	Clear	100	40-100360
PVDF HB	4mm	0.45µm	No	No	PP	Clear	100	40-100361
PVDF HB	13mm	0.22µm	No	No	PP	Yellow	100	40-100362
PVDF HB	13mm	0.22µm	Yes	No	PP	Yellow	100	40-100362-PF
PVDF HB	13mm	0.22µm	No	Yes	PP	Yellow	100	40-100362-S
PVDF HB	13mm	0.45µm	No	No	PP	Yellow	100	40-100363
PVDF HB	13mm	0.45µm	Yes	No	PP	Yellow	100	40-100363-PF
PVDF HB	13mm	0.45µm	No	Yes	PP	Yellow	100	40-100363-S
PVDF HB	25mm	0.22µm	No	No	PP	Yellow	100	40-100364
PVDF HB	25mm	0.22µm	Yes	No	PP	Yellow	100	40-100364-PF
PVDF HB	25mm	0.22µm	No	Yes	PP	Yellow	100	40-100364-S
PVDF HB	25mm	0.45µm	No	No	PP	Yellow	100	40-100365
PVDF HB	25mm	0.45µm	Yes	No	PP	Yellow	100	40-100365-PF
PVDF HB	25mm	0.45µm	No	Yes	PP	Yellow	100	40-100365-S
PVDF HB	30mm	0.22µm	No	No	PP	Yellow	100	40-100366
PVDF HB	30mm	0.22µm	Yes	No	PP	Yellow	100	40-100366-PF
PVDF HB	30mm	0.22µm	No	Yes	PP	Yellow	100	40-100366-S
PVDF HB	30mm	0.45µm	No	No	PP	Yellow	100	40-100367
PVDF HB	30mm	0.45µm	Yes	No	PP	Yellow	100	40-100367-PF
PVDF HB	30mm	0.45µm	No	Yes	PP	Yellow	100	40-100367-S

For 50mm Filters see page 17

\* PP: Polypropylene  
MBS: Medical Acrylic

**PVDF - HYDROPHILIC (PVDF HL)**

- \* 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
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
PVDF HL	4mm	0.22µm	No	No	PP	Clear	100	40-100320
PVDF HL	4mm	0.45µm	No	No	PP	Clear	100	40-100321
PVDF HL	13mm	0.22µm	No	No	PP	Yellow	100	40-100033
PVDF HL	13mm	0.22µm	No	Yes	PP	Yellow	100	40-100033-S
PVDF HL	13mm	0.22µm	Yes	No	PP	Yellow	100	40-100033-PF
PVDF HL	13mm	0.45µm	No	No	PP	Yellow	100	40-100032
PVDF HL	13mm	0.45µm	No	Yes	PP	Yellow	100	40-100032-S
PVDF HL	13mm	0.45µm	Yes	No	PP	Yellow	100	40-100032-PF
PVDF HL	25mm	0.22µm	No	No	PP	Yellow	100	40-100031
PVDF HL	25mm	0.22µm	No	Yes	PP	Yellow	100	40-100031-S
PVDF HL	25mm	0.22µm	Yes	No	PP	Yellow	100	40-100031-PF
PVDF HL	25mm	0.45µm	No	No	PP	Yellow	100	40-100030
PVDF HL	25mm	0.45µm	No	Yes	PP	Yellow	100	40-100030-S
PVDF HL	25mm	0.45µm	Yes	No	PP	Yellow	100	40-100030-PF
PVDF HL	30mm	0.22µm	No	No	PP	Yellow	100	40-100035
PVDF HL	30mm	0.22µm	No	Yes	PP	Yellow	50	40-100035-S
PVDF HL	30mm	0.22µm	Yes	No	PP	Yellow	100	40-100035-PF
PVDF HL	30mm	0.45µm	No	Yes	PP	Yellow	50	40-100034-S
PVDF HL	30mm	0.45µm	No	No	PP	Yellow	100	40-100034
PVDF HL	30mm	0.45µm	Yes	No	PP	Yellow	100	40-100034-PF
PVDF HL	33mm	0.22µm	No	No	MBS	Yellow	100	40-100038
PVDF HL	33mm	0.22µm	No	Yes	MBS	Yellow	100	40-100038-S
PVDF HL	33mm	0.22µm	Yes	No	MBS	Yellow	100	40-100038-PF
PVDF HL	33mm	0.45µm	No	No	MBS	Yellow	100	40-100039
PVDF HL	33mm	0.45µm	No	Yes	MBS	Yellow	100	40-100039-S
PVDF HL	33mm	0.45µm	Yes	No	MBS	Yellow	100	40-100039-PF

## POLYETHERSULFONE (PES)

- Hydrophilic.
- Very low protein and nucleonic acid binding
- 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
- Suitable for acids, bases and general HPLC analysis
- Female Luer Lock Inlet, Male Luer Slip Outlet
- Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
PES	4mm	0.22µm	No	No	PP	Clear	100	40-100340
PES	4mm	0.45µm	No	No	PP	Clear	100	40-100341
PES	13mm	0.1µm	No	No	PP	Dark Green	100	40-100380
PES	13mm	0.22µm	No	No	PP	Dark Green	100	40-100053
PES	13mm	0.22µm	No	Yes	PP	Dark Green	100	40-100053-S
PES	13mm	0.22µm	Yes	No	PP	Dark Green	100	40-100053-PF
PES	13mm	0.45µm	No	No	PP	Dark Green	100	40-100052
PES	13mm	0.45µm	No	Yes	PP	Dark Green	100	40-100052-S
PES	13mm	0.45µm	Yes	No	PP	Dark Green	100	40-100052-PF
PES	25mm	0.1µm	No	No	PP	Dark Green	100	40-100381
PES	25mm	0.22µm	No	No	PP	Dark Green	100	40-100051
PES	25mm	0.22µm	No	Yes	PP	Dark Green	100	40-100051-S
PES	25mm	0.22µm	Yes	No	PP	Dark Green	100	40-100051-PF
PES	25mm	0.45µm	No	No	PP	Dark Green	100	40-100050
PES	25mm	0.45µm	No	Yes	PP	Dark Green	100	40-100050-S
PES	25mm	0.45µm	Yes	No	PP	Dark Green	100	40-100050-PF
PES	30mm	0.22µm	No	No	PP	Dark Green	100	40-100055
PES	30mm	0.22µm	No	Yes	PP	Dark Green	100	40-100055-S
PES	30mm	0.22µm	Yes	No	PP	Dark Green	100	40-100055-PF
PES	30mm	0.45µm	No	No	PP	Dark Green	100	40-100054
PES	30mm	0.45µm	No	Yes	PP	Dark Green	100	40-100054-S
PES	30mm	0.45µm	Yes	No	PP	Dark Green	100	40-100054-PF
PES	33mm	0.22µm	No	Yes	MBS	Dark Green	100	40-100056-S
PES	33mm	0.22µm	No	No	MBS	Dark Green	100	40-100056
PES	33mm	0.22µm	Yes	No	MBS	Dark Green	100	40-100056-PF
PES	33mm	0.45µm	No	Yes	MBS	Dark Green	100	40-100057-S
PES	33mm	0.45µm	No	No	MBS	Dark Green	100	40-100057
PES	33mm	0.45µm	Yes	No	MBS	Dark Green	100	40-100057-PF

For 50mm Filters see page 17

## REGENERATED CELLULOSE (RC)

- 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
- Female Luer Lock Inlet, Male Luer Slip Outlet
- Available in Standard, Sterile and with pre-filter formats

*Not suitable for use with strong acids, chloroform or THF*



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
RC	13mm	0.22µm	No	No	PP	Light Blue	100	40-100043
RC	13mm	0.22µm	No	Yes	PP	Light Blue	100	40-100043-S
RC	13mm	0.22µm	Yes	No	PP	Light Blue	100	40-100043-PF
RC	13mm	0.22µm	Yes	No	PP	Light Blue	100	40-100041-PF
RC	13mm	0.45µm	No	No	PP	Light Blue	100	40-100042
RC	13mm	0.45µm	No	Yes	PP	Light Blue	100	40-100042-S
RC	13mm	0.45µm	Yes	No	PP	Light Blue	100	40-100042-PF
RC	25mm	0.22µm	No	No	PP	Light Blue	100	40-100041
RC	25mm	0.22µm	No	Yes	PP	Light Blue	100	40-100041-S
RC	25mm	0.45µm	No	No	PP	Light Blue	100	40-100040
RC	25mm	0.45µm	No	Yes	PP	Light Blue	100	40-100040-S
RC	25mm	0.45µm	Yes	No	PP	Light Blue	100	40-100040-PF
RC	30mm	0.22µm	No	No	PP	Light Blue	100	40-100046
RC	30mm	0.22µm	No	Yes	PP	Light Blue	100	40-100046-S
RC	30mm	0.22µm	Yes	No	PP	Light Blue	100	40-100046-PF
RC	30mm	0.45µm	No	No	PP	Light Blue	100	40-100045
RC	30mm	0.45µm	No	Yes	PP	Light Blue	100	40-100045-S
RC	30mm	0.45µm	Yes	No	PP	Light Blue	100	40-100045-PF

\* PP: Polypropylene  
MBS: Medical Acrylic

## MIXED CELLULOSE ESTERS (MCE)

- \* Hydrophilic membrane
- \* A mixture of nitrocellulose and cellulose acetate
- \* Suitable for cleaning or sterilising many aqueous solutions
- \* Ideal for biological samples or culture media
- \* Female Luer Lock Inlet, Male Luer Slip Outlet
- \* Available in Standard, Sterile and with pre-filter formats



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing*	Colour	Pack	Cat. No.
MCE	13mm	0.22µm	No	No	PP	Light Green	100	40-100073
MCE	13mm	0.22µm	No	Yes	PP	Light Green	100	40-100073-S
MCE	13mm	0.22µm	Yes	No	PP	Light Green	100	40-100073-PF
MCE	13mm	0.45µm	No	No	PP	Light Green	100	40-100072
MCE	13mm	0.45µm	No	Yes	PP	Light Green	100	40-100072-S
MCE	13mm	0.45µm	Yes	No	PP	Light Green	100	40-100072-PF
MCE	13mm	0.8µm	No	No	PP	Light Green	100	40-100390
MCE	13mm	1.2µm	No	No	PP	Light Green	100	40-100391
MCE	13mm	3µm	No	No	PP	Light Green	100	40-100392
MCE	25mm	0.22µm	No	No	PP	Light Green	100	40-100071
MCE	25mm	0.22µm	No	Yes	PP	Light Green	50	40-100071-S
MCE	25mm	0.22µm	Yes	No	PP	Light Green	100	40-100071-PF
MCE	25mm	0.45µm	No	No	PP	Light Green	100	40-100070
MCE	25mm	0.45µm	No	Yes	PP	Light Green	50	40-100070-S
MCE	25mm	0.45µm	Yes	No	PP	Light Green	100	40-100070-PF
MCE	25mm	0.8µm	No	No	PP	Light Green	100	40-100393
MCE	25mm	1.2µm	No	No	PP	Light Green	100	40-100394
MCE	25mm	3µm	No	No	PP	Light Green	100	40-100395
MCE	30mm	0.22µm	No	No	PP	Light Green	100	40-100075
MCE	30mm	0.22µm	No	Yes	PP	Light Green	100	40-100075-S
MCE	30mm	0.22µm	Yes	No	PP	Light Green	100	40-100075-PF
MCE	30mm	0.45µm	No	No	PP	Light Green	100	40-100074
MCE	30mm	0.45µm	No	Yes	PP	Light Green	100	40-100074-S
MCE	30mm	0.45µm	Yes	No	PP	Light Green	100	40-100074-PF
MCE	33mm	0.22µm	No	No	MBS	Light Green	100	40-100076
MCE	33mm	0.22µm	No	Yes	MBS	Light Green	100	40-100076-S
MCE	33mm	0.22µm	Yes	No	MBS	Light Green	100	40-100076-PF
MCE	33mm	0.45µm	No	No	MBS	Light Green	100	40-100077
MCE	33mm	0.45µm	Yes	No	MBS	Light Green	100	40-100077-PF
MCE	33mm	0.45µm	No	Yes	MBS	Light Green	100	40-100077-S

\* PP: Polypropylene  
MBS: Medical Acrylic

Special discounts are available for call-off and bulk orders, please enquire.

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## 50mm Diameter Filters with Hose Barb / Luer Slip Fittings

A range of membranes are available in Nylon, PES, PTFE Hydrophobic and PVDF Hydrophobic in Sterile and non-Sterile formats and with or without built in Glass Fiber pre-Filters.

The filters have superior flow rates and high throughputs, are disposable and have a good resistance to pressure.

These filter units are designed for a variety of applications including:

- Sterilising gases
- Venting sterile containers
- Confining and isolating infectious materials in vacuum systems to protect the laboratory
- Removal of bacteria, scale and other contaminants from oxygen and other medical gases.
- Sterilising or clarifying organic solutions
- Fittings: 6.5mm - 11mm Stepped Hose Barb with female luer slip



Membrane	Diameter	Porosity	With GF Pre-filter	Sterile	Housing	Colour	Pack	Cat. No.
Nylon	50mm	0.22µm	No	No	PP	White	25	40-100630
Nylon	50mm	0.22µm	Yes	No	PP	White	25	40-100630-PF
Nylon	50mm	0.22µm	Yes	Yes	PP	White	25	40-100630-PF-S
Nylon	50mm	0.22µm	No	Yes	PP	White	25	40-100630-S
Nylon	50mm	0.45µm	No	No	PP	White	25	40-100631
Nylon	50mm	0.45µm	Yes	No	PP	White	25	40-100631-PF
Nylon	50mm	0.45µm	Yes	Yes	PP	White	25	40-100631-PF-S
Nylon	50mm	0.45µm	No	Yes	PP	White	25	40-100631-S
PES	50mm	0.22µm	No	No	PP	White	25	40-100620
PES	50mm	0.22µm	Yes	No	PP	White	25	40-100620-PF
PES	50mm	0.22µm	Yes	Yes	PP	White	25	40-100620-PF-S
PES	50mm	0.22µm	No	Yes	PP	White	25	40-100620-S
PES	50mm	0.45µm	No	No	PP	White	25	40-100621
PES	50mm	0.45µm	Yes	No	PP	White	25	40-100621-PF
PES	50mm	0.45µm	Yes	Yes	PP	White	25	40-100621-PF-S
PES	50mm	0.45µm	No	Yes	PP	White	25	40-100621-S
PTFE HB	50mm	0.22µm	No	No	PP	White	25	40-100600
PTFE HB	50mm	0.22µm	Yes	No	PP	White	25	40-100600-PF
PTFE HB	50mm	0.22µm	Yes	Yes	PP	White	25	40-100600-PF-S
PTFE HB	50mm	0.22µm	No	Yes	PP	White	25	40-100600-S
PTFE HB	50mm	0.45µm	No	No	PP	White	25	40-100601
PTFE HB	50mm	0.45µm	Yes	No	PP	White	25	40-100601-PF
PTFE HB	50mm	0.45µm	Yes	Yes	PP	White	25	40-100601-PF-S
PTFE HB	50mm	0.45µm	No	Yes	PP	White	25	40-100601-S
PVDF HB	50mm	0.22µm	No	No	PP	White	25	40-100610
PVDF HB	50mm	0.22µm	Yes	No	PP	White	25	40-100610-PF
PVDF HB	50mm	0.22µm	Yes	Yes	PP	White	25	40-100610-PF-S
PVDF HB	50mm	0.22µm	No	Yes	PP	White	25	40-100610-S
PVDF HB	50mm	0.45µm	No	No	PP	White	25	40-100611
PVDF HB	50mm	0.45µm	Yes	No	PP	White	25	40-100611-PF
PVDF HB	50mm	0.45µm	Yes	Yes	PP	White	25	40-100611-PF-S
PVDF HB	50mm	0.45µm	No	Yes	PP	White	25	40-100611-S

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## Greyhound Q-Fil Syringe Filters

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