Filtration Technology

## Syringe Filter Catalogue

Syringe filters are a cost-effective way to improve the quality of HPLC analysis, improve consistency, extend column life and reduce maintenance. By removing particulates before the sample enters the column, WINTECH syringe filters allow unimpeded flow. Without particulates to create obstructions, your column will work more efficiently and last longer.

WINTECH syringe filter units are used for small volume filtration of liquids, gasses and other material-specific applications. They are made of extractable free virgin polypropylene housings with luer lock and luer slip fittings. Each filter is sealed to ensure that no adhesives can contaminate the samples, which is essential to maintain the sample integrity. These syringe filters are ideal for applications in pharmaceutical, environmental, biotechnology, food, beverage and agricultural testing laboratories.





### **Selecting Right Syringe Filter**

Choose the size of filter based on the volume of sample that must be filtered.

Choose the porosity of the filter based on the size of potential particulates that may be present in your sample. If you have a great deal of particulate matter, you may want to use a glass fiber filter, place a glass fiber prefilter in front of your membrane filter to prevent rapid plugging or use a 2-in-1 filter that has a built-in pre-filter in a single housing.

Choose the membrane type based on the solvent that you want to filter.

### **Filter Types**

All filter designed with a Female Luer-Lock inlet and Male Luer-Slip outlets, polypropylene housings and come in three diameters, 13mm, 25mm, 33mm. WINTECH provides the most popular type of membranes to cover a very wide range of applications, Nylon, PTFE, PES, PVDF, CA, MCE and 2-in-1 (above material with Glass Fiber or PP pre-filter).



**Filtration Technology** 

### **QC** control

After manufacturing it in shape, we still focus on testing it to judge whether it is OK and using strict quality-controlled system to forbid shoddy product.

Every 90 in 100 can be sold to our customer in the end, 10 pieces are to be died out.

The shelf life of packaged product is also monitored and controlled within our warehouse to ensure efficient stock rotation.

Each piece through this system is selected after concerning 5 factors with critical specifications set for:

- ♦ Bubble point
- ♦ Burst pressure
- ♦ Membrane adsorption (protein)
- ♦ Flow rate
- ♦ UV extractables (by HPLC)

### **Technical specifications**

Parameter	13 mm	25 mm	30 mm
Effective Filtration Area(cm2)	1.09	4.08	5.39
Maximum Pressure	87psi (6.0 bar) at 20 °C	87psi (6.0 bar) at 20 °C	87psi (6.0 bar) at 20 °C
Maximum Operating Temperature	50 °C	50 °C	50 °C
Materials of Construction	Housing: Polypropylene	Housing: Polypropylene	Housing: Polypropylene
Filtration Media	As specified		
Holdup volume (µI)	<25	<100	<200
Sample volume (ml)	<10	<100	<200
Connectors	Inlet: Female Luer Lock Outlet: Male Slip Luer	Inlet: Female Luer Lock Outlet: Male Slip Luer	Inlet: Female Luer Lock Outlet: Male Slip Luer
Flow Direction	Inlet: Female Luer Lock Outlet: Male Slip Luer (MSL)	Inlet: Female Luer Lock Outlet: Male Slip Luer	Inlet: Female Luer Lock Outlet: Male Slip Luer

**Filtration Technology** 

## Nylon Syringe Filter



Hydrophilic Nylon membranes are suitable for filtering aqueous solutions and most organic solvents. It's ideal for HPLC, GC or dissolution sample analysis and widely used in most biological preparations, Electric semiconductor, industrial water filtration, chemicals filtration, drinks filtration.

#### Feature:

- very low extractables
- strong membranes with high thermostability
- flexible, durable and tear resistant.
- excellent flow characteristics.
- hydrophilic surface and does not require pre-wetting beforehand
- strong tenacity and absorbability
- non sterile and sterile nylon syringe filters are gamma radiation and individually wrapped, certified RNase-free, DNase-free.

## PTFE Syringe Filter



PTFE syringe filters are particularly suitable for preparing organic solvent-based samples to HPLC analysis. The hydrophobic nature of the membrane also has applications for air and gas sterilization. Good resistant to most acids and alkalis makes it to be the best choice for the aggressive solvents, liquids and gases.

### Feature:

- strong acid and alkali solvent filtration.
- use as a vent or to protect vacuum pumps
- broad chemical resistance.
- excellent temperature stability
- organic solvent with strong chemical causticity filtration
- available in aqueous solvent after pre-wetting (normally by using a small amount of alcohol).
- non sterile and sterile PTFE syringe filters are gamma radiation and individually wrapped, certified RNase-free, DNase-free.

**Filtration Technology** 

## **PES Syringe Filter**



Polyether sulfone (PES) syringe filter are hydrophilic, it's low binding to proteins and nucleic acid. Good used in aqueous applications and biological samples. Best choice for protein solution, tissue culture media and its additive filtration. RNase-free, DNase-free.

#### Feature:

- · low binding to proteins and nucleic acid
- high filtration speed
- low extractables
- good for tissue culture media filtration and protein solution
- non sterile and sterile PES syringe filters are Gamma radiation and individually wrapped,
- certified RNase-free, DNase-free.

## **PVDF Syringe Filter**



PVDF (Polyvinylidene difluoride) syringe filters provides high flow rates and throughput, low extractable protein-binding and broad chemical compatibility. Good for filtration of non-aggressive aqueous and mild organic solutions, HPLC and GC sample prep/clean up.

### Feature:

- · extremely low protein-binding
- good heat endurance and chemical stability.
- syringe filters for cell culture provide effective filtration for a wide variety of sample types.
- all items are quality tests for filter efficacy and housing integrity.
- non sterile and sterile PVDF Syringe Filters are Gamma radiation and individually wrapped,
- certified RNase-free, DNase- free.

**Filtration Technology** 

## **CA Syringe Filter**



Cellulose acetate (CA) is hydrophilic syringe filter with low protein binding and excellent flow rates. Good used in aqueous applications and biological sample

#### Feature:

- low binding to proteins.
- high filtration speed
- good for tissue culture media filtration and protein solution
- non sterile and sterile CA syringe filters are Gamma radiation and individually wrapped, certified RNase-free, DNase- free

## MCE Syringe Filter



Mixed Cellulose Ester (MCE) membrane filters are composed of cellulose acetate and cellulose nitrate. it's one of the most widely used membranes in analytical and research applications. It's good for filtration of oil particulate, Alcohol particulate as well as other particulate solvent.

### Feature:

- little resistance
- high protein binding.
- · high porosity provides high flow rate
- gas particulate and bacteria filtration
- alcohol particulate and bacteria filtration
- non sterile and sterile MCE Syringe Filters are Gamma radiation and individually wrapped, certified RNase-free, DNase-free.