

# TLG<sup>®</sup> SYRINGE FILTER

TLG<sup>®</sup> syringe filters from Sati International provide excellent, economical filtration systems that improve the authenticity of experimental results and reduce instrument downtime.



TLG™ syringe filters are made of a long lasting polypropylene housing secured around the membrane with a molded polypropylene enclosure ring. This double injection molding process yields a strong filter built to resist pressures beyond most industry alternatives.



### TLG™ Syringe Filters Salient Feature:

- High flow percentage and low absorption membranes for minimum sample loss
- Color coded outer ring allows easy description of membrane and filter media type. Each filter is clearly marked with an expressive code to give pore size and membrane material
- Secured outer ring on housing provides strength under higher working pressures for prime performance needs
- Manufacturing process certified to ISO 9001 standards

### Sterile Syringe Filters:

Sterile TLG™ syringe filters satisfy requirements of bioscience applications for sterilization of solutions or clarification of biological fluids. Sterile filters include a PP microfiber pre-filter layer to enhance filtration of particulate-laden fluids that are difficult to filter with single layer syringe filters.

- Individually packaged in peel able blister with filter diameter, membrane type, and membrane porosity clearly marked on the package
- Sterilized by Gamma Irradiation to SAL 10-6



### Non Sterile Syringe Filters:

Non-sterile TLG™ syringe filters are perfect to be used in an exceedingly wide range of filtration and sample applications where sterility isn't needed. Non-sterile filters are employed in analytical chemistry for sample preparation, HPLC operations, and protecting analytical equipment from particle contamination.





Available in an exceedingly type of filter diameters, membrane types, and membrane porosities, there's a TLG™ syringe filters to satisfy nearly all syringe filter application requirements.

### PVDF Syringe Filter

#### Features and Benefits:

- Good heat- endurance and chemical stability, strong hydrophobicity
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes(0.22µm and 0.45µm)
- All items have passed quality tests for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase- free,
- Non-pyrogenic, and DNA- free.



### PTFE Syringe Filter

#### Features and Benefits:

- Broad chemical compatibility
- strong chemical stability and inertia
- strong hydrophobicity
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes (0.22µm and 0.45µm) and four different membrane types.
- All items are quality tests for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase free,
- Non-pyrogenic, and DNA- free.

## Nylon Syringe Filter

### Features and Benefits:

- Hydrophilic property
- No need to moist beforehand
- Uniform aperture
- Strong tenacity and adsorb ability
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types.
- All items are quality tested for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase-free,
- Non-pyrogenic, and DNA-free.



## PES Syringe Filter

- High filtration speed
- Lowest protein binding
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types. They are available in two pore sizes (0.22 µm and 0.45 µm)
- All items are quality tested for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase-free,
- Non-pyrogenic, and DNA-free.



## MCE Syringe Filter

### Features and Benefits:

- Uniform aperture
- No medium dropping
- Thin texture
- Little resistance
- High filtration speed
- Little absorption
- Syringe Filters for Cell Culture provide effective filtration for a wide variety of sample types.
- All items are quality tested for filter efficacy and housing integrity. The housing is pressure tested for use with up to 75 psig (5.0 bar) of pressure
- Designed with a Female Luer-Lok inlet and Male Luer slip outlets.
- Some Filters are individually wrapped sterile, certified RNase-free, DNase-free,
- Non-pyrogenic, and DNA-free.





# Non-Sterile Syringe Filters

## Polyamide (PA), Nylon66 Syringe Filter, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLN0422	0.22	04 mm	Nylon (Hydrophilic)	100
CS-GLN0445	0.45	04 mm	Nylon (Hydrophilic)	100
CS-GLN1322	0.22	13 mm	Nylon (Hydrophilic)	100
CS-GLN1345	0.45	13 mm	Nylon (Hydrophilic)	100
CS-GLN2522	0.22	25 mm	Nylon (Hydrophilic)	100
CS-GLN2545	0.45	25 mm	Nylon (Hydrophilic)	100
CS-GLN3022	0.22	30 mm	Nylon (Hydrophilic)	100
CS-GLN3045	0.45	30 mm	Nylon (Hydrophilic)	100

## Polytetrafluorethylene(PTFE) Syringe Filter, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLPT1322 PL	0.22	13 mm	PTFE(Hydrophilic)	100
CS-GLPT1345 PL	0.45	13 mm	PTFE(Hydrophilic)	100
CS-GLPT2522 PL	0.22	25 mm	PTFE(Hydrophilic)	100
CS-GLPT2545 PL	0.45	25 mm	PTFE(Hydrophilic)	100
CS-GLPT3022 PL	0.22	30 mm	PTFE(Hydrophilic)	100
CS-GLPT3045 PL	0.45	30 mm	PTFE(Hydrophilic)	100

## Polyvinylidene fluoride(PVDF) Syringe Filter, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLPV0422	0.22	04 mm	PVDF (Hydrophilic)	100
CS-GLPV0445	0.45	04 mm	PVDF (Hydrophilic)	100
CS-GLPV1322	0.22	13 mm	PVDF (Hydrophilic)	100
CS-GLPV1345	0.45	13 mm	PVDF (Hydrophilic)	100
CS-GLPV2522	0.22	25 mm	PVDF (Hydrophilic)	100
CS-GLPV2545	0.45	25 mm	PVDF (Hydrophilic)	100
CS-GLPV3022	0.22	30 mm	PVDF (Hydrophilic)	100
CS-GLPV3045	0.45	30 mm	PVDF (Hydrophilic)	100

## Polyvinylidene fluoride(PVDF) Syringe Filter, Hydrophobic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLPV2545H	0.45	25 mm	PVDF (Hydrophobic)	100

# Non-Sterile Syringe Filters

## Mixed Cellulose Ester(MCE) Syringe Filter, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLMC0422	0.22	04 mm	MCE (Hydrophilic)	100
CS-GLMC0445	0.45	04 mm	MCE (Hydrophilic)	100
CS-GLMC1322	0.22	13 mm	MCE (Hydrophilic)	100
CS-GLMC1345	0.45	13 mm	MCE (Hydrophilic)	100
CS-GLMC2522	0.22	25 mm	MCE (Hydrophilic)	100
CS-GLMC2545	0.45	25 mm	MCE (Hydrophilic)	100

## Polyethersulfone(PES) Syringe Filter, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLPES0422	0.22	4 mm	PES (Hydrophilic)	100
CS-GLPES0445	0.45	4 mm	PES (Hydrophilic)	100
CS-GLPES1322	0.22	13 mm	PES (Hydrophilic)	100
CS-GLPES1345	0.45	13 mm	PES (Hydrophilic)	100
CS-GLPES2522	0.22	25 mm	PES (Hydrophilic)	100
CS-GLPES2545	0.45	25 mm	PES (Hydrophilic)	100
CS-GLPES3022	0.22	30 mm	PES (Hydrophilic)	100
CS-GLPES3045	0.45	30 mm	PES (Hydrophilic)	100

## Cellulose Acetate (CA) Syringe Filter, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-CA0422	0.22	4 mm	CA (Hydrophilic)	100
CS-CA0445	0.45	4 mm	CA (Hydrophilic)	100
CS-CA1322	0.22	13 mm	CA (Hydrophilic)	100
CS-CA1345	0.45	13 mm	CA (Hydrophilic)	100
CS-CA2522	0.22	25 mm	CA (Hydrophilic)	100
CS-CA2545	0.45	25 mm	CA (Hydrophilic)	100
CS-CA3022	0.22	30 mm	CA (Hydrophilic)	100
CS-CA3045	0.45	30 mm	CA (Hydrophilic)	100

# Non-Sterile Syringe Filters

## Polytetrafluorethylene(PTFE) Syringe Filter, Hydrophobic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLPT0422	0.22	04 mm	PTFE(Hydrophobic)	100
CS-GLPT0445	0.45	04 mm	PTFE(Hydrophobic)	100
CS-GLPT1322	0.22	13 mm	PTFE(Hydrophobic)	100
CS-GLPT1345	0.45	13 mm	PTFE(Hydrophobic)	100
CS-GLPT2501	1.00	25 mm	PTFE(Hydrophobic)	100
CS-GLPT2522	0.22	25 mm	PTFE(Hydrophobic)	100
CS-GLPT2545	0.45	25 mm	PTFE(Hydrophobic)	100
CS-GLPT3022	0.22	30 mm	PTFE(Hydrophobic)	100
CS-GLPT3045	0.45	30 mm	PTFE(Hydrophobic)	100

## Glass Fiber Syringe Filter (Hydrophobic)

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GF01322N	0.7	13 mm	Glass Fiber, (Hydrophobic)	100
CS-GF01345N	1.2	13 mm	Glass Fiber, (Hydrophobic)	100
CS-GF02522N	0.7	25 mm	Glass Fiber, (Hydrophobic)	100
CS-GF02545N	1.2	25 mm	Glass Fiber, (Hydrophobic)	100
CS-GF03022N	0.7	30 mm	Glass Fiber, (Hydrophobic)	100
CS-GF03045N	1.2	30 mm	Glass Fiber, (Hydrophobic)	100

## Polypropylene (PP) Syringe Filter (Hydrophobic)

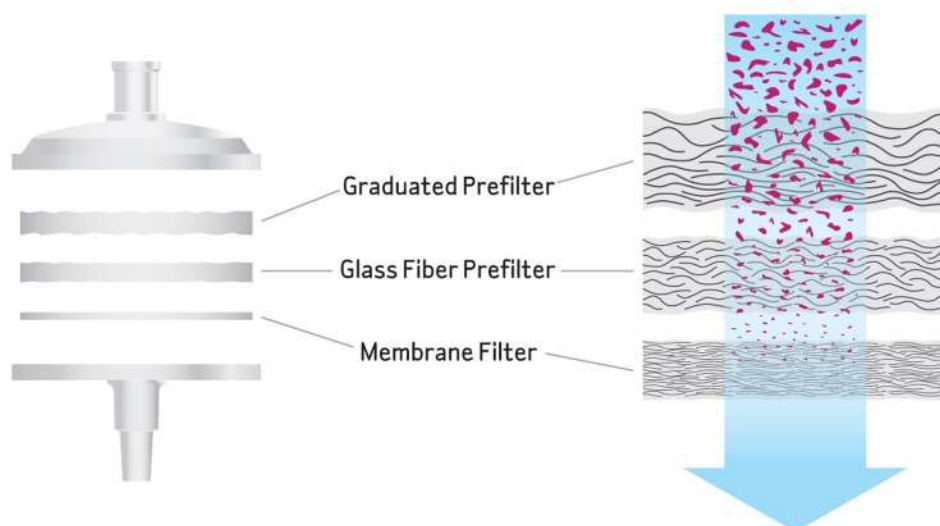
Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-GLPP0422	0.22	4 mm	PP(Hydrophobic)	100
CS-GLPP0445	0.45	4 mm	PP(Hydrophobic)	100
CS-GLPP1322	0.22	13 mm	PP(Hydrophobic)	100
CS-GLPP1345	0.45	13 mm	PP(Hydrophobic)	100
CS-GLPP2522	0.22	25 mm	PP(Hydrophobic)	100
CS-GLPP2545	0.45	25 mm	PP(Hydrophobic)	100
CS-GLPP3022	0.22	30 mm	PP(Hydrophobic)	100
CS-GLPP3045	0.45	30 mm	PP(Hydrophobic)	100



# Syringe Filters with Pre-Filter

Certain food, beverage, or dissolution testing samples can be hard to filter. They either contain high levels of particulates, resulting in clogged filters, or are highly viscous, resulting in slow flow rates.

TLG® filters include a graduated glass fiber prefilter to remove larger particles and either a 0.22 µm or 0.45 µm membrane filter for fine filtration. This combination of membranes provides significantly greater throughput than standard filters without prefiltration media, especially when filtering particle-laden solutions.



## Nylon Syringe Filter (Hydrophilic) with Glass Fiber Prefilter

- ▶ They have a better flow rate and better filtration efficiency than normal syringe filters.
- ▶ It is used for samples that are hard to filter
- ▶ Commonly used for general laboratory filtration and filtration of HPLC and GC samples prior to injection
- ▶ Filtration of aqueous and organic-aqueous polar medium liquids
- ▶ Dissolution sample analysis
- ▶ Suitable for use with high pH samples

It requires less hand force. The unique pre-filter layer allows high particulate samples to be filtered with less hand force.



Catalog Number	Description	Diameter(mm)	Pore	Wettability	Pack Type
CS-NSP1322	Nylon Syringe Filter with 1µm pore size Glass Fiber Prefilter	13 mm	0.22	Hydrophilic	100
CS-NSP1345	Nylon Syringe Filter with 1µm pore size Glass Fiber Prefilter	13 mm	0.45	Hydrophilic	100
CS-NSP2522	Nylon Syringe Filter with 1µm pore size Glass Fiber Prefilter	25 mm	0.22	Hydrophilic	100
CS-NSP2545	Nylon Syringe Filter with 1µm pore size Glass Fiber Prefilter	25 mm	0.45	Hydrophilic	100
CS-NSP3022	Nylon Syringe Filter with 1µm pore size Glass Fiber Prefilter	30 mm	0.22	Hydrophilic	100
CS-NSP3045	Nylon Syringe Filter with 1µm pore size Glass Fiber Prefilter	30 mm	0.45	Hydrophilic	100



## PTFE Syringe Filter (Hydrophobic) with Glass Fiber Prefilter

Filters are available in a broad range of membrane materials with sterile and non-sterile packaging options.

- ▶ PTFE membranes are inherently hydrophobic; they are ideal for the filtration of nonpolar liquids and gases.
- ▶ Very resistant to solvents as well as acids or bases.
- ▶ Used for filtering and de-gassing chromatography solvents
- ▶ Permits optimal utilization of small sample volumes
- ▶ Excellent chemical compatibility for filtering harsh chemicals that destroy other membrane materials
- ▶ Glass microfiber prefilter raises absorption capacity and loading



Catalog Number	Description	Diameter	Pore	Wettability	Pack Type
CS-PTSP1322	PTFE Syringe Filter with 1 µm pore size Glass Fiber Prefilter	13 mm	0.22	Hydrophobic	100
CS-PTSP1345	PTFE Syringe Filter with 1 µm pore size Glass Fiber Prefilter	13 mm	0.45	Hydrophobic	100
CS-PTSP2522	PTFE Syringe Filter with 1µm pore size Glass Fiber Prefilter	25 mm	0.22	Hydrophobic	100
CS-PTSP2545	PTFE Syringe Filter with 1 µm pore size Glass Fiber Prefilter	25 mm	0.45	Hydrophobic	100
CS-PTSP3022	PTFE Syringe Filter with 1µm pore size Glass Fiber Prefilter	30 mm	0.22	Hydrophobic	100
CS-PTSP3045	PTFE Syringe Filter with 1 µm pore size Glass Fiber Pre filter	30 mm	0.45	Hydrophobic	100

## PVDF Syringe Filter (Hydrophobic & Hydrophilic) with Glass Fiber Prefilter

- ▶ Permanent hydrophilic treatment for ease of use with aqueous solutions
- ▶ Exceptionally low protein binding and nonspecific adsorption
- ▶ Broad chemical and pH compatibility
- ▶ It is used in the sterilization of enzymes /protein solutions
- ▶ Filtration of chromatography samples, buffers and mobile phases



Catalog Number	Description	Diameter	Pore	Wettability	Pack Type
CS-PVSP1322	PVDF Syringe Filter with 1µm pore size Glass Fiber Prefilter	13 mm	0.22	Hydrophobic	100
CS-PVSP1345	PVDF Syringe Filter with 1µm pore size Glass Fiber Prefilter	13 mm	0.45	Hydrophobic	100
CS-PVSP2522	PVDF Syringe Filter with 1µm pore size Glass Fiber Prefilter	25 mm	0.22	Hydrophobic	100
CS-PVSP2522HL	PVDF Syringe Filter with 1µm pore size Glass Fiber Prefilter	25 mm	0.22	Hydrophilic	100
CS-PVSP2545	PVDF Syringe Filter with 1µm pore size Glass Fiber Prefilter	25 mm	0.45	Hydrophobic	100
CS-PVSP2545HL	PVDF Syringe Filter with 1µm pore size Glass Fiber Prefilter	25 mm	0.45	Hydrophilic	100
CS-PVSP3022	PTFE Syringe Filter with 1 µm pore size Glass Fiber Pre filter	30 mm	0.22	Hydrophobic	100
CS-PVSP3022HL	PTFE Syringe Filter with 1 µm pore size Glass Fiber Pre filter	30 mm	0.22	Hydrophilic	100
CS-PVSP3045	PTFE Syringe Filter with 1 µm pore size Glass Fiber Pre filter	30 mm	0.45	Hydrophobic	100
CS-PVSP3045HL	PTFE Syringe Filter with 1 µm pore size Glass Fiber Pre filter	30 mm	0.45	Hydrophilic	100

## Sterile Syringe Filters

Sterile TLG™ syringe filters satisfy requirements of bioscience applications for sterilization of solutions or clarification of biological fluids. Sterile filters include a PP microfiber pre-filter layer to enhance filtration of particulate-laden fluids that are difficult to filter with single layer syringe filters.

- ▶ Individually packaged in peel able blister with filter diameter, membrane type, and membrane porosity clearly marked on the package
- ▶ Sterilized by Gamma Irradiation to SAL 10-6



### Nylon (NY) Sterile, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SNY1322	0.22	13 mm	Nylon (Hydrophilic)	100
CS-SNY1345	0.45	13 mm	Nylon (Hydrophilic)	100
CS-SNY2522	0.22	25 mm	Nylon (Hydrophilic)	100
CS-SNY2545	0.45	25 mm	Nylon (Hydrophilic)	100
CS-SNY3022	0.22	30 mm	Nylon (Hydrophilic)	100
CS-SNY3045	0.45	30 mm	Nylon (Hydrophilic)	100



# Sterile Syringe Filters

## Polytetrafluorethylene (PTFE), Sterile, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SPT1322 PL	0.22	13 mm	PTFE(Hydrophilic)	100
CS-SPT1345 PL	0.45	13 mm	PTFE(Hydrophilic)	100
CS-SPT2522 PL	0.22	25 mm	PTFE(Hydrophilic)	100
CS-SPT2545 PL	0.45	25 mm	PTFE(Hydrophilic)	100
CS-SPT3022 PL	0.22	30 mm	PTFE(Hydrophilic)	100
CS-SPT3045 PL	0.45	30 mm	PTFE(Hydrophilic)	100

## Polyvinylidene fluoride (PVDF), Sterile, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SPV1322 PL	0.22	13 mm	PVDF (Hydrophilic)	100
CS-SPV1345 PL	0.45	13 mm	PVDF (Hydrophilic)	100
CS-SPV2522 PL	0.22	25 mm	PVDF (Hydrophilic)	100
CS-SPV2545 PL	0.45	25 mm	PVDF (Hydrophilic)	100
CS-SPV3022 PL	0.22	30 mm	PVDF (Hydrophilic)	100
CS-SPV3045 PL	0.45	30 mm	PVDF (Hydrophilic)	100

## Mixed Cellulose Ester (MCE), Sterile, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SMCE1322	0.22	13 mm	MCE (Hydrophilic)	100
CS-SMCE1345	0.45	13 mm	MCE (Hydrophilic)	100
CS-SMCE2522	0.22	25 mm	MCE (Hydrophilic)	100
CS-SMCE2545	0.45	25 mm	MCE (Hydrophilic)	100

## Polyethersulfone (PES) Sterile, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SPES1322	0.22	13 mm	PES (Hydrophilic)	100
CS-SPES1345	0.45	13 mm	PES (Hydrophilic)	100
CS-SPES2522	0.22	25 mm	PES (Hydrophilic)	100
CS-SPES2545	0.45	25 mm	PES (Hydrophilic)	100
CS-SPES3022	0.22	30 mm	PES (Hydrophilic)	100
CS-SPES3045	0.45	30 mm	PES (Hydrophilic)	100

# Sterile Syringe Filters

## Cellulose Acetate (CA), Sterile, Hydrophilic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SCA1322	0.22	13 mm	CA (Hydrophilic)	100
CS-SCA1345	0.45	13 mm	CA (Hydrophilic)	100
CS-SCA2522	0.22	25 mm	CA (Hydrophilic)	100
CS-SCA2545	0.45	25 mm	CA (Hydrophilic)	100
CS-SCA3022	0.22	30 mm	CA (Hydrophilic)	100
CS-SCA3045	0.45	30 mm	CA (Hydrophilic)	100

## Polytetrafluorethylene (PTFE), Sterile, Hydrophobic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SPT1322	0.22	13 mm	PTFE(Hydrophobic)	100
CS-SPT1345	0.45	13 mm	PTFE(Hydrophobic)	100
CS-SPT2522	0.22	25 mm	PTFE(Hydrophobic)	100
CS-SPT2545	0.45	25 mm	PTFE(Hydrophobic)	100
CS-SPT3022	0.22	30 mm	PTFE(Hydrophobic)	100
CS-SPT3045	0.45	30 mm	PTFE(Hydrophobic)	100

## Polyvinylidene fluoride (PVDF), Sterile, Hydrophobic

Cat. No.	Pore Size	Outside Dia.	Membrane Type	Pack Type
CS-SPV1322	0.22	13 mm	PVDF (Hydrophobic)	100
CS-SPV1345	0.45	13 mm	PVDF (Hydrophobic)	100
CS-SPV2522	0.22	25 mm	PVDF (Hydrophobic)	100
CS-SPV2545	0.45	25 mm	PVDF (Hydrophobic)	100
CS-SPV3022	0.22	30 mm	PVDF (Hydrophobic)	100
CS-SPV3045	0.45	30 mm	PVDF (Hydrophobic)	100

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