

.red[®] Syringe Filtration Products



Product datasheet

Introduction

The .red[®] product range now includes an important range of filtration products for sample preparation. Key features include:

- All products produced in an ISO9001-2000 registered production unit
- Syringe filter manufacturing: Clean Room facility for complete manufacturing
- All products QA tested
- All syringe filters, air vent filters and in-line filters are CE certified
- In house moulding and test room facilities

Contents

SYRINGE FILTERS
Nylon Syringe Filters - Sterile
Nylon Syringe Filters - Non Sterile
CA Syringe Filters - Sterile
CA Syringe Filters - Non Sterile
PVDF Syringe Filters - Sterile
PVDF Syringe Filters - Non Sterile
PES Syringe Filters - Sterile
PES Syringe Filters - Non Sterile
PTFE Syringe Filters - Sterile
PTFE Syringe Filters - Non Sterile

AIR VENT & IN-LINE FILTERS
Air Vent Filters (PTFE)-Sterile
Air In-line Filters (PVDF) - Sterile
Syringe Filter with Prefilter
Nylon Membrane+Glass Fibre-Non Sterile
Nylon Membrane + Glass Fibre - Sterile
PES Membrane + Glass Fibre- Non Sterile
PES Membrane + Glass Fibre - Sterile

**** NOTE: Minimum order quantity of 5,000 pieces applies to all syringe filters****

Product datasheet

NYLON SYRINGE FILTERS - STERILE

Media - Nylon-66

Technical specification

Retention Efficiency	0.2µm - LRV > 7 for <i>Brevundimonas diminuta</i> 0.45µm - LRV > 7 for <i>Serratia marcescens</i>
Wettability	Hydrophilic
Sterilization	ETO
Effective filtration area	0.1cm ² for 4mm, 0.8 cm ² for 13mm & 3.9 cm ² for 25mm
Hold up volume	<10µl for 4mm, <20µl for 13 mm & <100µl for 25mm (after air purge)
Extractable (NVR)	Very low (with in limit as specified in USP XXIV)
Initial water flow rate (ml/min at 10 psi for 25mm)	35.4ml/min for 0.2µm & 67.2ml/min for 0.45µm
Filtration volume	<1ml for 4mm, 1-10ml for 13mm & 10-100ml for 25mm



Applications

- HPLC solvents sample filtration
- Mobile phase separation
- For aqueous as well as organic solvent filtration

Ordering information

Code	Description
SF04NY002S	Syringe filter 4mm diameter Nylon 0.2µm membrane Sterile 100 pack
SF04NY045S	Syringe filter 4mm diameter Nylon 0.45µm membrane Sterile 100 pack
SF13NY002S	Syringe filter 13mm diameter Nylon 0.2µm membrane Sterile 100 pack
SF13NY045S	Syringe filter 13mm diameter Nylon 0.45µm membrane Sterile 100 pack
SF25NY002S	Syringe filter 25mm diameter Nylon 0.2µm membrane Sterile 50 pack
SF25NY045S	Syringe filter 25mm diameter Nylon 0.45µm membrane Sterile 50 pack
SF33NY002S	Syringe filter 33mm diameter Nylon 0.2µm membrane Sterile 50 pack
SF33NY045S	Syringe filter 33mm diameter Nylon 0.45µm membrane Sterile 50 pack

**** NOTE: Minimum order quantity of 5,000 pieces applies to all syringe filters****

Product datasheet

NYLON SYRINGE FILTERS - NON STERILE

Non-Sterile, packed in transparent Plastic Jar (bulk pack)

Ordering information

Code	Description
SF04NY002NS	Syringe filter 4mm diameter Nylon 0.2µm membrane non-Sterile 100 pack
SF04NY045NS	Syringe filter 4mm diameter Nylon 0.45µm membrane non-Sterile 100 pack
SF13NY002NS	Syringe filter 13mm diameter Nylon 0.2µm membrane non-Sterile 100 pack
SF13NY045NS	Syringe filter 13mm diameter Nylon 0.45µm membrane non-Sterile 100 pack
SF25NY002NS	Syringe filter 25mm diameter Nylon 0.2µm membrane non-Sterile 100 pack
SF25NY045NS	Syringe filter 25mm diameter Nylon 0.45µm membrane non-Sterile 100 pack
SF33NY002NS	Syringe filter 33mm diameter Nylon 0.2µm membrane non-Sterile 100 pack
SF33NY045NS	Syringe filter 33mm diameter Nylon 0.45µm membrane non-Sterile 100 pack

CELLULOSE ACETATE SYRINGE FILTERS - STERILE

Media - Cellulose acetate

Technical specification

Retention efficiency:	0.2µm - LRV > 7 for Brevundimonas diminuta 0.45µm - LRV > 7 for Serratia marcescens
Wettability:	Hydrophilic
Sterilization:	ETO
Effective filtration area:	0.1cm ² for 4mm, 0.8 cm ² for 13mm & 3.9 cm ² for 25mm
Hold up volume:	<10µl for 4mm, <20µl for 13mm & <100µl for 25mm (after air purge)
Extractable (NVR):	Very low (with in limit as specified in USP XXIV)
Initial Water flow rate: (at 10 psi for 25 mm)	38.4ml/min for 0.2µl & 72.3ml/min for 0.45µl
Filtration volume:	<1ml for 4mm, 1-10ml for 13mm & 10-100mm for 25mm

**** NOTE: Minimum order quantity of 5,000 pieces applies to all syringe filters****

.red® Syringe Filtration Products



Product datasheet

Applications

- Suitable for filtration of protein solutions
- For aqueous as well as organic solvent filtration



Ordering information

Code	Description
SF04CA002S	Syringe filter 4mm diameter Cellulose Acetate 0.2µm membrane Sterile 100 pack
SF04CA045S	Syringe filter 4mm diameter Cellulose Acetate 0.45µm membrane Sterile 100 pack
SF13CA002S	Syringe filter 13mm diameter Cellulose Acetate 0.2µm membrane Sterile 100 pack
SF13CA045S	Syringe filter 13mm diameter Cellulose Acetate 0.45µm membrane Sterile 100 pack
SF25CA002S	Syringe filter 25mm diameter Cellulose Acetate 0.2µm membrane Sterile 50 pack
SF25CA045S	Syringe filter 25mm diameter Cellulose Acetate 0.45µm membrane Sterile 50 pack
SF33CA002S	Syringe filter 33mm diameter Cellulose Acetate 0.2µm membrane Sterile 50 pack
SF33CA045S	Syringe filter 33mm diameter Cellulose Acetate 0.45µm membrane Sterile 50 pack

CELLULOSE ACETATE SYRINGE FILTERS - NON STERILE

Non-sterile, packed in transparent plastic jar (bulk pack)

ORDERING INFORMATION

Code	Description
SF04CA002NS	Syringe filter 4mm diameter Cellulose Acetate 0.2µm membrane non-Sterile 100 pack
SF04CA045NS	Syringe filter 4mm diameter Cellulose Acetate 0.45µm membrane non-Sterile 100 pack
SF13CA002NS	Syringe filter 13mm diameter Cellulose Acetate 0.2µm membrane non-Sterile 100 pack
SF13CA045NS	Syringe filter 13mm diameter Cellulose Acetate 0.45µm membrane non-Sterile 100 pack
SF25CA002NS	Syringe filter 25mm diameter Cellulose Acetate 0.2µm membrane non-Sterile 100 pack
SF25CA045NS	Syringe filter 25mm diameter Cellulose Acetate 0.45µm membrane non-Sterile 100 pack
SF33CA002NS	Syringe filter 33mm diameter Cellulose Acetate 0.2µm membrane non-Sterile 100 pack
SF33CA045NS	Syringe filter 33mm diameter Cellulose Acetate 0.45µm membrane non-Sterile 100 pack

=> CA syringe filter also available with prefilter (GF) for high throughput on request.

** NOTE: Minimum order quantity of 5,000 pieces applies to all syringe filters**

Product datasheet

PVDF SYRINGE FILTERS - STERILE

Media - PVDF (Polyvinylidene fluoride)

Technical specification:

Retention efficiency:	0.2µm - LRV > 7 for <i>Brevundimonas diminuta</i> 0.45µm - LRV > 7 for <i>Serratia marcescens</i>
Wettability:	Hydrophilic
Sterilization:	ETO
Effective filtration area:	0.1cm ² for 4mm, 0.8cm ² for 13mm & 3.9cm ² for 25mm
Hold up volume:	<10µl for 4mm, <20µl for 13mm & <100µl for 25mm (after air purge)
Extractable (NVR):	Very low (with in limit as specified in USP XXIV)
Initial water flow rate: (at 10 psi for 25 mm)	41.3ml/min for 0.2µm & 94.3ml/min for 0.45µm
Filtration volume:	< 1ml for 4mm, 1-10ml for 13mm & 10-100mm for 25mm

Applications

- For analytical and research applications
- For aqueous as well as organic solvent filtration
- Filtration of difficult filter solutions.

Ordering information

Code	Description
SF04PVDF002S	Syringe filter 4mm diameter Polyvinylidene fluoride 0.2µm membrane Sterile 100 pack
SF04PVDF045S	Syringe filter 4mm diameter Polyvinylidene fluoride 0.45µm membrane Sterile 100 pack
SF13PVDF002S	Syringe filter 13mm diameter Polyvinylidene fluoride 0.2µm membrane Sterile 100 pack
SF13PVDF045S	Syringe filter 13mm diameter Polyvinylidene fluoride 0.45µm membrane Sterile 100 pack
SF25PVDF002S	Syringe filter 25mm diameter Polyvinylidene fluoride 0.2µm membrane Sterile 50 pack
SF25PVDF045S	Syringe filter 25mm diameter Polyvinylidene fluoride 0.45µm membrane Sterile 50 pack
SF33PVDF002S	Syringe filter 33mm diameter Polyvinylidene fluoride 0.2µm membrane Sterile 50 pack
SF33PVDF045S	Syringe filter 33mm diameter Polyvinylidene fluoride 0.45µm membrane Sterile 50 pack

**** NOTE: Minimum order quantity of 5,000 pieces applies to all syringe filters****

Product datasheet

PVDF SYRINGE FILTERS - NON STERILE

Non-Sterile, packed in transparent Plastic Jar (BULK PACK)



Ordering information

Code	Description
SF04PVDF002NS	Syringe filter 4mm diameter Polyvinylidene fluoride 0.2µm membrane non-Sterile 100 pack
SF04PVDF045NS	Syringe filter 4mm diameter Polyvinylidene fluoride 0.45µm membrane non-Sterile 100 pack
SF13PVDF002NS	Syringe filter 13mm diameter Polyvinylidene fluoride 0.2µm membrane non-Sterile 100 pack
SF13PVDF045NS	Syringe filter 13mm diameter Polyvinylidene fluoride 0.45µm membrane non-Sterile 100 pack
SF25PVDF002NS	Syringe filter 25mm diameter Polyvinylidene fluoride 0.2µm membrane non-Sterile 100 pack
SF25PVDF045NS	Syringe filter 25mm diameter Polyvinylidene fluoride 0.45µm membrane non-Sterile 100 pack
SF33PVDF002NS	Syringe filter 33mm diameter Polyvinylidene fluoride 0.2µm membrane non-Sterile 100 pack
SF33PVDF045NS	Syringe filter 33mm diameter Polyvinylidene fluoride 0.45µm membrane non-Sterile 100 pack

= => PVDF Syringe Filter also available with prefilter (GF) for high throughput on request.

PES SYRINGE FILTERS - STERILE

Media - PES (Polyethersulfone)

Technical specification

Retention efficiency:	0.2µm - LRV > 7 for Brevundimonas diminuta 0.45 urn - LRV > 7 for Serratia marcescens
Wettability	Hydrophilic
Sterilization	ETO
Effective filtration area	0.1cm ² for 4mm, 0.8cm ² for 13mm & 3.9cm ² for 25mm
Hold up volume	<10µl for 4mm, <20µl for 13mm & <100µl for 25mm (after air purge)
Extractable (NVR)	Very low (with in limit as specified in USP XXIV)
Initial water flow rate	46.2ml/min for 0.2µm & 68.0ml/min for 0.45µm (at 10 psi for 25 mm)
Filtration Volume	<1ml for 4mm, 1-10ml for 13mm & 10-100mm for 25mm

**** NOTE: Minimum order quantity of 5,000 pieces applies to all syringe filters****

Product datasheet

Specific features

- Low protein binding to minimize sample loss
- Wide chemical compatibility
- Low sample absorption



Applications

- For Analytical and Research applications
- Recommended for aqueous as well as organic solvent filtration
- Filtration of difficult filter solutions.

Ordering information

Code	Description
SF04PES002S	Syringe filter 4mm diameter Polyethersulphone 0.2µm membrane Sterile 100 pack
SF04PES045S	Syringe filter 4mm diameter Polyethersulphone 0.45µm membrane Sterile 100 pack
SF13PES002S	Syringe filter 13mm diameter Polyethersulphone 0.2µm membrane Sterile 100 pack
SF13PES045S	Syringe filter 13mm diameter Polyethersulphone 0.45µm membrane Sterile 100 pack
SF25PES002S	Syringe filter 25mm diameter Polyethersulphone 0.2µm membrane Sterile 50 pack
SF25PES045S	Syringe filter 25mm diameter Polyethersulphone 0.45µm membrane Sterile 50 pack
SF33PES002S	Syringe filter 33mm diameter Polyethersulphone 0.2µm membrane Sterile 50 pack
SF33PES045S	Syringe filter 33mm diameter Polyethersulphone 0.45µm membrane Sterile 50 pack

PES SYRINGE FILTERS-NON STERILE

Non-Sterile, packed in transparent Plastic Jar (BULK PACK)

Code	Description
SF04PES002NS	Syringe filter 4mm diameter Polyethersulphone 0.2µm membrane non-Sterile 100 pack
SF04PES045NS	Syringe filter 4mm diameter Polyethersulphone 0.45µm membrane non-Sterile 100 pack
SF13PES002NS	Syringe filter 13mm diameter Polyethersulphone 0.2µm membrane non-Sterile 100 pack
SF13PES045NS	Syringe filter 13mm diameter Polyethersulphone 0.45µm membrane non-Sterile 100 pack
SF25PES002NS	Syringe filter 25mm diameter Polyethersulphone 0.2µm membrane non-Sterile 100 pack
SF25PES045NS	Syringe filter 25mm diameter Polyethersulphone 0.45µm membrane non-Sterile 100 pack
SF33PES002NS	Syringe filter 33mm diameter Polyethersulphone 0.2µm membrane non-Sterile 100 pack
SF33PES045NS	Syringe filter 33mm diameter Polyethersulphone 0.45µm membrane non-Sterile 100 pack

Product datasheet

PTFE SYRINGE FILTERS - STERILE

Media - Polytetrafluoro ethylene (Hydrophobic), Widely chemical compatible

Technical specification:

Retention efficiency: 0.2µm - LRV > 7 for *Brevundimonas diminuta*
0.45µm - LRV > 7 for *Serratia marcescens*

Wettability: Hydrophobic

Sterilization: ETO

Effective filtration area: 0.1cm² for 4mm, 0.8 cm² for 13mm & 3.9 cm² for 25mm

Hold up volume: <10µl for 4mm, <20µl for 13mm & <100µl for 25mm
(after air purge)

Extractable (NVR): Very low (with in limit as specified in USP XXIV)

Initial 40% IPA flow rate: 21ml/min for 0.2µm & 29.3ml/min for 0.45µm
(at 10 psi for 25 mm)

Filtration Volume: <1ml for 4mm, 1-10ml for 13mm & 10-100mm for 25mm

Applications

- For analytical and research applications & for air sampling
- Used under extreme chemical or temperature conditions
- For non- aqueous base organic solvent filtration
- Ideal for filtration of highly aggressive colloidal solutions

Ordering information

Code	Description
SF04PTFE002S	Syringe filter 4mm diameter Polytetrafluoroethelene 0.2µm membrane Sterile 100 pack
SF04PTFE045S	Syringe filter 4mm diameter Polytetrafluoroethelene 0.45µm membrane Sterile 100 pack
SF13PTFE002S	Syringe filter 13mm diameter Polytetrafluoroethelene 0.2µm membrane Sterile 100 pack
SF13PTFE045S	Syringe filter 13mm diameter Polytetrafluoroethelene 0.45µm membrane Sterile 100 pack
SF25PTFE002S	Syringe filter 25mm diameter Polytetrafluoroethelene 0.2µm membrane Sterile 50 pack
SF25PTFE045S	Syringe filter 25mm diameter Polytetrafluoroethelene 0.45µm membrane Sterile 50 pack
SF33PTFE002S	Syringe filter 33mm diameter Polytetrafluoroethelene 0.2µm membrane Sterile 50 pack
SF33PTFE045S	Syringe filter 33mm diameter Polytetrafluoroethelene 0.45µm membrane Sterile 50 pack

.red® Syringe Filtration Products



Product datasheet

PTFE SYRINGE FILTERS-NON STERILE

Hydrophobic, Non-Sterile, packed in transparent Plastic Jar (bulk pack)



Ordering information

Code	Description
SF04PTFE002NS	Syringe filter 4mm diameter Polytetrafluoroethylene 0.2µm membrane non-Sterile 100 pack
SF04PTFE045NS	Syringe filter 4mm diameter Polytetrafluoroethylene 0.45µm membrane non-Sterile 100 pack
SF13PTFE002NS	Syringe filter 13mm diameter Polytetrafluoroethylene 0.2µm membrane non-Sterile 100 pack
SF13PTFE045NS	Syringe filter 13mm diameter Polytetrafluoroethylene 0.45µm membrane non-Sterile 100 pack
SF25PTFE002NS	Syringe filter 25mm diameter Polytetrafluoroethylene 0.2µm membrane non-Sterile 100 pack
SF25PTFE045NS	Syringe filter 25mm diameter Polytetrafluoroethylene 0.45µm membrane non-Sterile 100 pack
SF33PTFE002NS	Syringe filter 33mm diameter Polytetrafluoroethylene 0.2µm membrane non-Sterile 100 pack
SF33PTFE045NS	Syringe filter 33mm diameter Polytetrafluoroethylene 0.45µm membrane non-Sterile 100 pack

= => PTFE Syringe Filter also available with prefilter (GF) for high throughput on request.

**** NOTE: Minimum order quantity of 5,000 pieces applies to all syringe filters****

Product datasheet

AIR VENT IN-LINE FILTERS

AIR VENT FILTERS -STERILE

Media - Polytetrafluoroethylene (Hydrophobic)



Technical specification

Retention efficiency: 0.2µm - LRV > 7 for *Brevundimonas diminuta*

0.45µm - LRV > 7 for *Serratia marcescens*

Wettability: Hydrophobic

Sterilization ETO (for sterile)

Max. operating pressure: 60 psi

Applications

- Pharmaceutical vents
- Applicable for small volume venting & degassing venting bioreactors
- Fermentation tanks & carboys sterile gas purging of culture vessel
- Laboratory: clean or sterile: gases, solvents, reagents, drying gases
- Electronics: photoresists, solvents, gases for research

Ordering information

Code	Description
AVF50PTFE002S	Air vent filter 50mm diameter Polytetrafluoroethylene 0.2µm membrane Sterile 10 pack
AVF50PTFE045S	Air vent filter 50mm diameter Polytetrafluoroethylene 0.45µm membrane Sterile 10 pack

IN-LINE FILTERS (PVDF)-STERILE

Media - Polyvinylidene fluoride

Technical specification

Retention efficiency: 0.2µm - LRV > 7 for *Brevundimonas diminuta*

0.45µm - LRV > 7 for *Serratia marcescens*

Wettability: Hydrophilic

Sterilization: ETO (for sterile)

Max. operating pressure: 60 psi

Product datasheet

Applications

- Pharmaceutical in-line applications
- Biotech: exhausts for growth environments, in-line sterilization
- Laboratory: for clean or sterile solvents, reagents, drying gases

Ordering information

Code	Description
AVF50PTFE002S	Air vent filter 50mm diameter Polytetrafluoroethylene 0.2µm membrane Sterile 10 pack
AVF50PTFE045S	Air vent filter 50mm diameter Polytetrafluoroethylene 0.45µm membrane Sterile 10 pack

IN-LINE FILTERS (PES)-STERILE

Media - Polyether sulfone

Technical specification

Retention efficiency: 0.2µm - LRV > 7 for *Brevundimonas diminuta*

0.45µm - LRV > 7 for *Serratia marcescens*

Sterilization: ETO (for sterile)

Max. operating pressure: 60 psi



Applications

- Pharmaceutical in-line applications
- Used in in-line filtration of chemicals at pilot level
- Laboratory: for clean or sterile solvents, reagents, drying gases

Ordering information

Code	Description
AVF50PES002S	Air vent filter 50mm diameter Polyether sulphone 0.2µm membrane Sterile 10 pack
AVF50PES045S	Air vent filter 50mm diameter Polyether sulphone 0.45µm membrane Sterile 10 pack

Product datasheet

SYRINGE FILTERS WITH PREFILTERS

- Syringe filters with prefilter (glass fibre filter) enhance the throughput rate by retention of particle >2.0µm size at prefiltration stage.
- Syringe filters with prefilter (glass fibre filter) are suitable for highly turbid or milky solutions
- Also used in the filtration of typical filter solution (viscous solutions)

SYRINGE FILTERS WITH GLASS FIBRE PREFILTRE

Syringe filter with Nylon membrane + glass fibre pre-filtration, sterile

Ordering information

Code	Description
PSF25GFNY002S	Prefilter/syringe filter 25mm diameter glass fibre + Nylon 0.2µm membrane Sterile 50 pcs
PSF25GFNY045S	Prefilter/syringe filter 25mm diameter glass fibre + Nylon 0.45µm membrane Sterile 50 pcs

Syringe filter with Nylon membrane + glass fibre pre-filtration, non-sterile

Ordering information

Code	Description
PSF25GFNY002NS	Prefilter/syringe filter 25mm diameter glass fibre + Nylon 0.2µm membrane non-Sterile 100pcs
PSF25GFNY045NS	Prefilter/syringe filter 25mm dia. glass fibre + Nylon 0.45µm membrane non-Sterile 100pcs

Syringe filter with PES membrane + glass fibre pre-filtration, sterile

Ordering information

Code	Description
PSF25PESNY002S	Prefilter/syringe filter 25mm diameter glass fibre + PES 0.2µm membrane Sterile 50 pcs
PSF25PESNY045S	Prefilter/syringe filter 25mm diameter glass fibre + PES 0.45µm membrane Sterile 50 pcs

Product datasheet

Syringe filter with Nylon membrane + glass fibre pre-filtration, non-sterile

Ordering information

Code	Description
PSF25PESY002NS	Prefilter/syringe filter 25mm diameter glass fibre + PES 0.2µm membrane non-Sterile 100pcs
PSF25PESNY045NS	Prefilter/syringe filter 25mm diameter glass fibre + PES 0.45µm membrane non-Sterile 100pcs