

SARTORIUS

Simplifying Progress

Sartorius Hero Products
for Biotech

 **fisher** scientific
part of Thermo Fisher Scientific



Minisart® Syringe Filters

High performance filters suitable for multiple applications in the Biotech segment!

Minisart® syringe filters are ideal for clarification and sterilization of solutions, as well as removal of particles for sample prep in the analytics. The filters are clean and safe as they are almost free of leachables and extractables. Additionally, they reliably remove particles and micro-organisms with no leakage. Minisart® with PP housing is optimized for filtration prior to analytics and withstands even harsh solvents and chemicals. They are available in a choice of membranes: Hydrophilic Regenerated Cellulose (RC), Nylon (PA) or Hydrophobic PTFE.

Key Features & Benefits

- Low adsorption of analytes
- Maximum chemical compatibility
- Minimum extractables or leachables
- Bidirectional use possible
- 100% optical integrity test
- Membranes with a wide choice of pore sizes
- HPLC Certification available

+ Selection Guide

+ Your lead qualifying questions

Sample Preparation



Clarification | Sterilization



Brochure

App Note

Chemical Compatibility

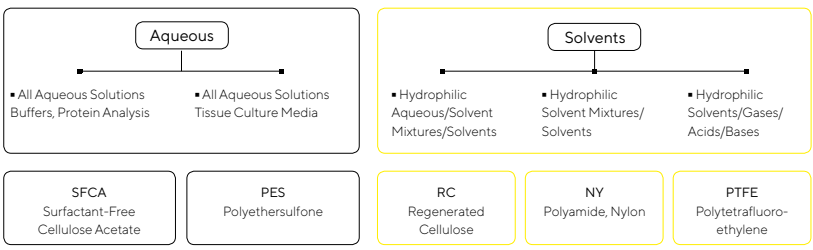
Hydrophilic Filters

RC Filters

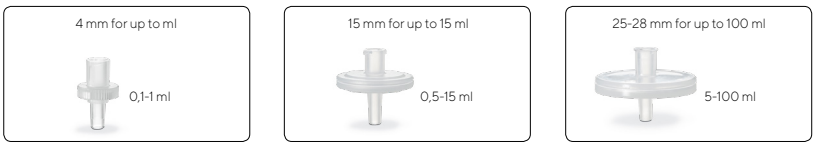
Minisart® Syringe Filter Selection Guide



1 Sample Composition



2 Sample Volumes



3 Pore Sizes

Sterilization		Sample Preparation - Clarification - Particle Removal					Prefiltration
0,1 µm Small Bacteria Mycoplasma Colloids > 0,1	0,2 µm UHPLC, etc. (Columns <3 µm Particles) Bacteria	0,45 µm HPLC, etc. (Columns > 3 µm Particles) Particles	0,65 µm Particles Yeast Cells	0,8 µm Particles Yeast Cells	1,2 µm Particles Yeast Cells Platelets	5 µm Large Particles Rubber Grit Cells	GF (Glass Fibre) Glass Prefilter Glass+Membrane Highly Particle-laden Samples

Sterilization



membranes

High performance filter applications in the Bio

Minisart® syringe filter sterilization of solution sample prep in the as they are almost fr Additionally, they re organisms with no le optimized for filtrati even harsh solvents a a choice of membran lose (RC), Nylon (PA)

Key Features & Bene

- Low adsorption of a
- Maximum chemical
- Minimum extractab
- Bidirectional use po
- 100% optical integri
- Membranes with a v
- HPLC Certification a

+ Selection Guide

+ Your lead qualify

Brochure

App

Minisart®

High performance applications in the

Minisart® syringe filters for sample sterilization of solutions in sample prep in the lab as they are also used for the sterilization of organisms with no special requirements. Additionally, they are optimized for filtering even harsh solvents. A choice of membrane materials (lose (RC), Nylon (

Key Features & Benefits

- Low adsorption
- Maximum chemical compatibility
- Minimum extractables
- Bidirectional use
- 100% optical integrity
- Membranes with low protein binding
- HPLC Certified

+ Selection Guide

+ Your lead quote

Minisart® Syringe Filters for HPLC Sample Preparation



4 mm packages are color-coded



Minisart® RC 15 mm



Minisart® NY 15 mm



Minisart® SRP 15 mm



Minisart® RC 25 mm



Minisart® NY 25 mm



Minisart® SRP 25 mm

Minisart® High Flow with PES



0,1 µm



0,45 µm



0,22 µm

all part numbers

Minisart® NML with SFCA



5,0 µm



1,2 µm



0,8 µm



0,65 µm



0,45 µm



0,2 µm

all part numbers

sterilization



Brochure

App Note

Chemical Compatibility

Hydrophilic Filters

RC Filters

Minisart®

Minisart® Syringe Filters for HPLC Sample Preparation

High performance applications in the



Minisart sterilize sample as the additional organic optimized even have a choice lose (R

Key Features

- Low adsorption
- Maximum flow rate
- Minimal pressure drop
- Bidirectional flow
- 100% efficiency
- Membrane
- HPLC

Minisart® RC (Regenerated Cellulose)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
4 mm	RC	PP	0.2 µm	Male Luer Slip	Blue Tray	No	50	17821----K
4 mm	RC	PP	0.2 µm	Male Luer Slip	Blue Tray	No	500	17821----Q
4 mm	RC	PP	0.45 µm	Male Luer Slip	Yellow Tray	No	50	17822----K
4 mm	RC	PP	0.45 µm	Male Luer Slip	Yellow Tray	No	500	17822----Q

Minisart® SRP (Hydrophobic PTFE)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
4 mm	PTFE	PP	0.2 µm	Male Luer Slip	Blue Tray	No	500	17844----Q
4 mm	PTFE	PP	0.45 µm	Male Luer Slip	Yellow Tray	No	50	17820----K
4 mm	PTFE	PP	0.45 µm	Male Luer Slip	Yellow Tray	No	500	17820----Q

* Sterile Minisart® syringe filters are individually packaged. If not stated other-wise, Minisart® units have been sterilized by ethylene oxide. Non-sterilized Minisart® units: RC, PTFE and nylon can be sterilized by auto-claving at 121°C for 30 min/or by using ethylene oxide (EO).
¹ Diameter of EFA – Effective Filtration Area

+ Selection Guide

+ Your lead time

5,0 µm

1,2 µm

0,8 µm

0,65 µm

0,45 µm

0,2 µm

all part numbers

Brochure

App Note

Chemical Compatibility

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RC Filters

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High performance applications in the

Minisart® syringe sterilization of sol

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- Bidirectional use

- 100% optical int

- Membranes with

- HPLC Certificat

+ Selection Gu

+ Your lead qua

Minisart® Syringe Filters for HPLC Sample Preparation

4 mm packages are color-coded

Minisart® RC 15 mm Minisart® NY 15 mm Minisart® SRP 15 mm

Minisart® RC (Regenerated Cellulose)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
15 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	17761----ACK
15 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	17761----K
15 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	17761----Q
15 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	17762----K
15 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	17762----Q

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¹ Diameter of EFA - Effective Filtration Area

Minisart® NML with SFCA

5,0 µm 1,2 µm 0,8 µm 0,65 µm 0,45 µm 0,2 µm

+ all part numbers

- Brochure
- App Note
- Chemical Compatibility
- Hydrophilic Filters
- RC Filters

Minisart®

Minisart® Syringe Filters for HPLC Sample Preparation



4 mm packages
are color-coded



Minisart® RC 15 mm



Minisart® NY 15 mm



Minisart® SRP 15 mm

Minisart® RC (Regenerated Cellulose)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	17764----ACK
25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	17764----K
25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	200	17764----S
25 mm	RC	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	17764----Q
25 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	17765----K
25 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	200	17765----S
25 mm	RC	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	17765----Q

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¹ Diameter of EFA – Effective Filtration Area



5,0 µm



1,2 µm



0,8 µm



0,65 µm



0,45 µm



0,2 µm

+ all part numbers

Brochure

App Note

Chemical Compatibility

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Minisart®

Minisart® Syringe Filters for HPLC Sample Preparation



4 mm packages
are color-coded



Minisart® RC 15 mm



Minisart® NY 15 mm



Minisart® SRP 15 mm

High performance applications in the

Minisart® syringe sterilization of sol

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Minisart® SRP (Hydrophobic PTFE)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
15 mm	PTFE	PP	0.2 µm	Male Spike	White, Printed	No	50	17558----K
15 mm	PTFE	PP	0.2 µm	Male Spike	White, Printed	No	500	17558----Q
15 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	17573----ACK
15 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	17573----K
15 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	17573----Q
15 mm	PTFE	PP	0.45 µm	Male Spike	White, Printed	No	50	17559----K
15 mm	PTFE	PP	0.45 µm	Male Spike	White, Printed	No	500	17559----Q
15 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	17574----K
15 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	17574----Q

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 Non-sterilized Minisart® units: RC, PTFE and nylon can be sterilized by auto-claving at 121°C for 30 min/or by using ethylene oxide (EO).
¹ Diameter of EFA – Effective Filtration Area

+ Selection Gu

+ Your lead qua

5,0 µm

1,2 µm

0,8 µm

0,65 µm

0,45 µm

0,2 µm

Brochure

App Note

Chemical Compatibility

Hydrophilic Filters

RC Filters

Minisart®

High performance applications in the

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- Membranes with
- HPLC Certificat

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Minisart® Syringe Filters for HPLC Sample Preparation



4 mm packages are color-coded



Minisart® RC 15 mm



Minisart® NY 15 mm



Minisart® SRP 15 mm

Minisart® SRP (Hydrophobic PTFE)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	17575----ACK
25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	17575----K
25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	200	17575----S
25 mm	PTFE	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	17575----Q
25 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	17576----K
25 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	200	17576----S
25 mm	PTFE	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	17576----Q

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¹ Diameter of EFA - Effective Filtration Area



5,0 µm



1,2 µm



0,8 µm



0,65 µm



0,45 µm



0,2 µm

+ all part numbers

Brochure

App Note

Chemical Compatibility

Hydrophilic Filters

RC Filters

Minisart®

High performance applications in the

Minisart® syringe filters for sterilization of samples

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Key Features

- Low adsorption
- Maximum flow
- Minimum extractables
- Bidirectional use
- 100% optical integrity
- Membranes with low protein adsorption
- HPLC Certification


Minisart® Syringe Filters for HPLC Sample Preparation




4 mm packages are color-coded



Minisart® RC 15 mm



Minisart® NY 15 mm



Minisart® SRP 15 mm

Minisart® NY (Nylon)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
15 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	No	50	1776B----K
15 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	1776B----Q
15 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	No	50	1776C----K
15 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	1776C----Q

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¹ Diameter of EFA - Effective Filtration Area

0,1 µm 0,45 µm 0,22 µm

Minisart® NML with SFCA








5,0 µm 1,2 µm 0,8 µm 0,65 µm 0,45 µm 0,2 µm

+ all part numbers

- Brochure
- App Note
- Chemical Compatibility
- Hydrophilic Filters
- RC Filters

Minisart®

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- 100% optical int
- Membranes with

- HPLC Certificat

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Minisart® Syringe Filters for HPLC Sample Preparation

4 mm packages are color-coded Minisart® RC 15 mm Minisart® NY 15 mm Minisart® SRP 15 mm

Minisart® NY (Nylon)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
25 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	Yes	50	17845----ACK
25 mm	Nylon	PP	0.2 µm	Male Luer Slip	White, Printed	No	500	17845----Q
25 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	Yes	50	17846----ACK
25 mm	Nylon	PP	0.45 µm	Male Luer Slip	White, Printed	No	500	17846----Q

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 Non-sterilized Minisart® units: RC, PTFE and nylon can be sterilized by auto-claving at 121°C for 30 min/or by using ethylene oxide (EO).
¹ Diameter of EFA - Effective Filtration Area

0,1 µm 0,45 µm 0,22 µm

Minisart® NML with SFCA

5,0 µm 1,2 µm 0,8 µm 0,65 µm 0,45 µm 0,2 µm

+ all part numbers

- Brochure
- App Note
- Chemical Compatibility
- Hydrophilic Filters
- RC Filters

Minisart®

Minisart® Syringe Filters for HPLC Sample Preparation

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Minisart® High Flow (PES - Polyethersulfone)

Dia. in mm EFA ¹	Membrane	Housing	Pore Size	Connector Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
28 mm	PES	MBS	0.1 µm	Male Luer Lock	Dark Red	Yes	50	16553-----K
28 mm	PES	MBS	0.22 µm	Male Luer Lock	Royal Blue	Yes#	50	16532----GUK
28 mm	PES	MBS	0.22 µm	Male Luer Lock	Royal Blue	Yes	50	16532-----K
28 mm	PES	MBS	0.22 µm	Male Luer Slip	Royal Blue	Yes	50	16541-----K
28 mm	PES	MBS	0.22 µm	Male Luer Lock	Royal Blue	No	500	16532-----Q
28 mm	PES	MBS	0.22 µm	Male Luer Slip	Royal Blue	No	500	16541-----Q
28 mm	PES	MBS	0.45 µm	Male Luer Lock	Amber	Yes	50	16537-----K
28 mm	PES	MBS	0.45 µm	Male Luer Lock	Amber	No	500	16537-----Q
28 mm	PES	MBS	0.45 µm	Male Luer Slip	Amber	Yes#	50	16533----GUK
28 mm	PES	MBS	0.45 µm	Male Luer Slip	Amber	Yes	50	16533-----K
28 mm	PES	MBS	0.45 µm	Male Luer Slip	Amber	No	500	16533-----Q

* Sterilized Minisart® units are individually packaged. If not stated otherwise, Minisart® are sterilized by ethylene oxide.
 # - Mark indicates sterilization by gamma irradiation.
 Non-sterilized Minisart® units: High Flow, NML, NML Plus and HY can be sterilized by ethylene oxide; High Flow, NML and NML Plus can also be sterilized by gamma irradiation
¹ Diameter of EFA - Effective Filtration Area

5,0 µm 1,2 µm 0,8 µm 0,65 µm 0,45 µm 0,2 µm

- Brochure
- App Note
- Chemical Compatibility
- Hydrophilic Filters
- RC Filters



Minisart® NML (SFCA - Surfactant-free Cellulose Acetate)

Dia. in mm	EFA ¹ Membrane	Housing	Pore Size	Connector/Outlet	Color Printing	Sterile*	Qty./Pkg.	Order No.
28 mm	SFCA	MBS	0.2 µm	Male Luer Lock	Blue	Yes	50	16534----K
28 mm	SFCA	MBS	0.2 µm	Male Luer Lock	Blue	Yes#	50	16534----GUK
28 mm	SFCA	MBS	0.2 µm	Male Luer Lock	Blue	No	500	16534----Q
28 mm	SFCA	MBS	0.2 µm	Male Luer Slip	Blue	Yes	50	17597----K
28 mm	SFCA	MBS	0.2 µm	Male Luer Slip	Blue	No	500	17597----Q
28 mm	SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	Yes	50	16555----K
28 mm	SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	Yes#	50	16555----GUK
28 mm	SFCA	MBS	0.45 µm	Male Luer Lock	Yellow	No	500	16555----Q
28 mm	SFCA	MBS	0.45 µm	Male Luer Slip	Yellow	Yes	50	17598----K
28 mm	SFCA	MBS	0.45 µm	Male Luer Slip	Yellow	No	500	17598----Q
28 mm	SFCA	MBS	0.65 µm	Male Luer Slip	Pink	Yes	50	16569----K
28 mm	SFCA	MBS	0.8 µm	Male Luer Lock	Green	Yes	50	16592----K
28 mm	SFCA	MBS	0.8 µm	Male Luer Lock	Green	Yes#	50	16592----GUK
28 mm	SFCA	MBS	0.8 µm	Male Luer Lock	Green	No	500	16592----Q
28 mm	SFCA	MBS	1.2 µm	Male Luer Lock	Red	Yes	50	17593----K
28 mm	SFCA	MBS	1.2 µm	Male Luer Lock	Red	No	500	17593----Q
28 mm	SFCA	MBS	5 µm	Male Luer Lock	Brown	Yes	50	17594----K
28 mm	SFCA	MBS	5 µm	Male Luer Lock	Brown	No	500	17594----Q

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Minisart® Syringe Filters

High performance filters suitable for multiple applications in the Biotech segment!

Minisart® syringe filters are ideal for clarification and sterilization of solutions, as well as removal of particles for sample prep in the analytics. The filters are clean and safe as they are almost free of leachables and extractables. Additionally, they reliably remove particles and micro-organisms with no leachables. Minisart filters are optimized for filtration of aqueous and non-aqueous solutions, even harsh solvents. Minisart offers a choice of membranes: RC (Regenerated Cellulose), Nylon (PA),

Key Features & Benefits

- Low adsorption of sample
- Maximum chemical compatibility
- Minimum extractables or leachables
- Bidirectional use possible
- 100% optical integrity test
- Membranes with a wide choice of pore sizes
- HPLC Certification available

[+](#) Selection Guide

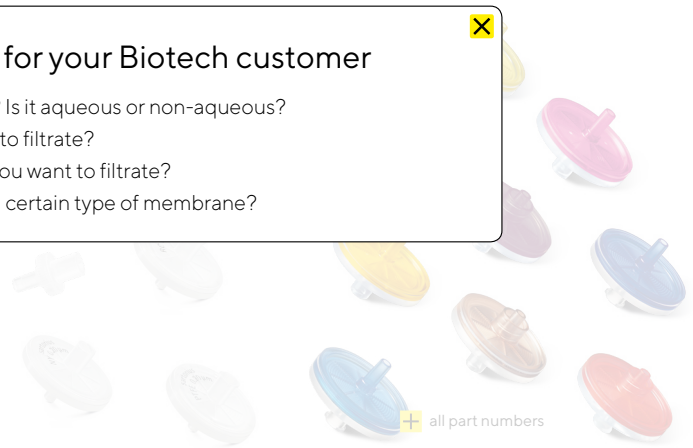
[+](#) Your lead qualifying questions

Sample Preparation

Clarification | Sterilization

Lead qualifying questions for your Biotech customer

1. What type of sample do you have? Is it aqueous or non-aqueous?
2. What is the volume you would like to filtrate?
3. What is the size of the molecules you want to filtrate?
4. Do you already have an affinity to a certain type of membrane?



[+](#) all part numbers

[Brochure](#)

[App Note](#)

[Chemical Compatibility](#)

[Hydrophilic Filters](#)

[RC Filters](#)