

Whatman™ Uniflo™ 13 mm and 25 mm Sterile Syringe Filters

Product Information sheet

Warning

For research use only.

Not recommended or intended for diagnosis of disease in humans or animals.

Do not use internally or externally in humans or animals.

Uniflo Sterile Syringe Filters are disposable filter units designed to provide clean filtrate from small volumes up to 100 mL. They are available in two Whatman membrane choices with a polypropylene overmold housing. Uniflo filters are individually printed for easy filter identification and packaged in a clean compact dispenser box to optimize laboratory storage space.

The sterile products are individually sealed in a medical grade clear blister pack and radiation sterilized.

This bulletin provides general information on the products listed below. The specifications in the Technical Data section are intended to provide a basis for establishing functional use, as well as for setting quality assurance test performance levels.

Uniflo 13 mm and 25 mm Sterile Syringe Filters

Uniflo Sterile Syringe Filters are designed to enable maximum filtrate throughput from typical sample volumes of 10 mL or less for 13 mm size and 100 mL or less for 25 mm size.

Filter Media	Typical Application	Available sizes
PES	Aqueous samples	13 mm & 25 mm
PVDF	Aqueous and/or organic based samples; low protein binding membrane	25 mm

Polyethersulfone (PES) Membrane:

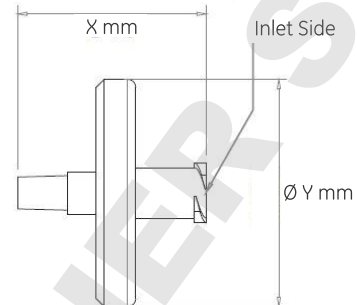
Polyethersulfone membrane provides durability, high temperature resistance, good chemical compatibility and low protein absorption. It is particularly suitable for filtration of serum, plasma and tissue culture solutions as well as other protein containing solutions where minimal adsorptive protein loss is desired.

Polyvinylidene Difluoride (PVDF) Membrane:

Polyvinylidene Fluoride membrane is a suitable choice for most HPLC sample preparation applications. The membrane is slightly hydrophobic with low water breakthrough values. It offers good chemical resistance to all common HPLC solvents.

Technical Data

Uniflo Sterile Syringe Filters



	13 mm	25 mm
Dimensions (X mm x Y mm):	19.6 mm x Ø16.9 mm	24.5 mm x Ø29.2 mm
Filtration Area:	0.65 cm ²	4.90 cm ²
Maximum Operating Pressure:	65.2 psi	
Volume "Hold Up" after air purge:	≤ 50 µL	≤ 100 µL
Housing:	Polypropylene	
Flow Direction:	Flow should enter from inlet	
Connectors:	Inlet - Female Luer Lock (FLL) Outlet - Male Luer (ML)	
Sterilization:	Sterilized by gamma irradiation (SAL 10 ⁻⁶) in accordance with ISO 11137	
Biosafe:	Polymer grade and membrane types meet the USP test requirements (for Class VI Plastics)	
Filter Media:	See chart below	

Integrity Test Data

Description	Pore Size Microns	Minimum Bubble Point psi*
Polyethersulfone	0.2	40.0
Polyethersulfone	0.45	33.0
Polyvinylidene Diofluoride	0.22	39.0
Polyvinylidene Diofluoride	0.45	17.5

* Bubble point determined with water.

Operating Instructions

Safety

When considering the special factors of your application, consult the Technical Data to determine correctness of use. Do not exceed the pressure or chemical compatibility recommendations. Chemical compatibility information can be found at:

<https://www.gelifesciences.com/media/373d93eec4ae463b8c4bd7594802fa5d/14575-source>



High pressures can be obtained when using syringes. The smaller the syringe the higher the pressure that can be generated. As a general guide, the following pressures can be obtained by hand with the syringes indicated: 20 mL, 80 psi; 10 mL, 140 psi; 5 mL, 180 psi; 3 mL, 200 psi; 1 mL, 250 psi. Each user should determine the pressure they can generate by hand with a specific size syringe and take appropriate safety precautions not to exceed the recommended rating for the device used. If these limitations are exceeded, bursting of the device may occur resulting in loss of sample or personal injury. If a syringe filter or packaging is damaged, user to follow their own standard operating procedures for the disposal of such products.

Efficiency

To maximize filtration throughput, use the largest pore size filter that will provide the required cleanliness. To extend filter life use low flow rates or pressures. These products are single use only. Products should not be used if the blister pack has been damaged or opened. Do not resterilize these products.

To use with a Syringe:

- 1) Fill the syringe with the solution to be filtered.
- 2) Secure the filled syringe to the FLL inlet of the syringe filter with a twisting motion.
- 3) With the outlet pointed upward, gradually apply thumb pressure to the syringe plunger to initiate flow.
- 4) Continue thumb pressure until all the air in the device is displaced with liquid.
- 5) Once liquid starts to exit the syringe filter from the outlet, stop applying pressure, point device downward and away from user.
- 6) Orientate syringe filter over suitable collection container or other apparatus and apply pressure again to filter sample.

Air Lock

Air Lock can seriously hamper flow rates. To eliminate, point the outlet of the filter device upward during the initiation of liquid flow as described above.

Bubble Point (BP) Test

Flush the filter device with 1.0 mL or more of the test fluid. After the filter is completely wet, with the outlet pointed upward, apply air under controlled pressure to the inlet until air breaks through the filter and bubbles can be seen at the outlet. The pressure at which air passes through the wetted filter is the BP. Refer to table on page 1 for typical BP values.

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Catalog Number	Membrane and Product Description	Pore Size μm	Quantity/Pack
9916-1302	PES	0.2	100
9916-1304	PES	0.45	100
9913-2502	PVDF	0.22	45
9913-2504	PVDF	0.45	45
9914-2502	PES	0.2	45
9914-2504	PES	0.45	45
9915-2502	PES	0.2	200
9915-2504	PES	0.45	200

Certificate Of Conformance

Lot specific Certificate of Conformance for the Uniflo Sterile Syringe filters is available for download at:
<https://www.gelifesciences.com/en/us/support/quality/certificates>

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www.gelifesciences.com/contact

GE Healthcare UK Limited
 Amersham Place
 Little Chalfont, Buckinghamshire,
 HP7 9NA, UK

<http://www.gelifesciences.com>

GE Healthcare offices:

GE Healthcare Bio-Sciences AB
 Björkgatan 30, 751 84 Uppsala,
 Sweden

GE Healthcare Europe GmbH
 Munzinger Strasse 5, D-79111 Freiburg,
 Germany

GE Healthcare Bio-Sciences Corp.
 100 Results Way, Marlborough,
 MA 01752
 USA

Hyclone Laboratories, Inc,
 925 W 1800 S, Logan
 UT 84321
 USA

GE Healthcare Japan Corporation
 Sanken Bldg. 3-25-1, Hyakunincho,
 Shinjuku-ku, Tokyo 169-0073,
 Japan



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