



PES MEMBRANES & SYRINGE FILTERS



Hahnemühle offers a globally recognised range of premium filter products. Our filter papers are produced for both liquid and air filtration technologies in various areas of application. The premium-quality cellulose, cotton linters, glass fibre and quartz fibre raw materials are suitable for all laboratory and industrial applications.

The microfiltration range includes syringe and membrane filters for reliably separating microorganisms and particles in liquids, air and gases. Clarifying and sterile filtration, sample preparation, sterile aeration and medical applications are just some of the areas where disposable filter holders are typically used.

All membrane products of Hahnemühle Life Science are well defined and labelled with: Filter type, order code, pore size, and lot number. Thus traceability is guaranteed and a convenient retrieval of all data compiled on of the article. Hahnemühle strives to offer products and services that consistently meet our customers' requirements and expectations by applying a strict quality management system as DIN EN ISO 9001. The certification document shows intense customer focus, which covers every stage of the value chain from product development to service provision.

Hahnemühle syringe filters and membranes are subject to stringent quality checks both during and after production. Finished products' storage life in the warehouse is constantly monitored. Each filter holder also undergoes the following five tests: bubble point, burst pressure, membrane adsorption, flow rate and extractable substances (HPLC-tested).

APPLICATIONS

Hydrophilic PES membranes have a high degree of porosity. So they perform with an excellent throughput of aqueous solutions. Due to their asymmetric membrane structure they combine higher flow rates with high physical stress resistance in the final device: Larger pore openings at the feed surface, and a narrowing the pore diameter toward the bottom surface of the membrane.

Their low non-specific protein binding makes them suitable for filtering biological and pharmaceutical solutions without any effects on the ingredients, due to adsorption or decomposition.

Their low level of extractables prevents contamination of culture media, preparations of drugs, pharmaceuticals or infusion solutions. In addition they pass the strict test for biocompatibility and cytotoxicity according to USP Standard.

- Separation of aqueous solutions for biological and clinical analyses
- Filtration in the Pharmaceutical and Food&Beverage industry
- Sterilisation of biological solutions, e.g. preparations of drugs, pharmaceuticals or infusion solutions
- Filtration of proteins and enzymes
- Biological and clinical analyses
- All major liquid and gas filtration applications
- Sterilisation of buffers, serums and culture media (0.2 µm)



For infusion therapy, the inherent hydrophilicity of the membrane allows fast priming of a finished device and provides a barrier to air passing through the wetted membrane. While wetting out quickly, PES membrane provides high throughput over time, extending the finished product's life.

MAIN FEATURES

- Made entirely from pure hydrophilic Polyethersulfone
- Recommended for aqueous samples, biological applications and protein filtration
- Particularly high flow rate, even with viscous liquids, due to their high porosity
- Very low non-specific adsorption
- Minimum for extractables of <0,1%
- Suitable for aqueous solutions within a pH range of 1 – 14 short-term, 1 - 13 long-term
- High mechanical strength and thermal stability up to 120° C/30 min
- Sterilisation by autoclaving with 121° C or Ethylene oxide
- Suited for use in pressure filtration devices
- Filter diameters from 25 mm to 142 mm
- Asymmetrical pore structure: higher flow rates plus high physical stress resistance
- Tested for biocompatibility and cytotoxicity according to USP Standard

TECHNICAL DATA - MEMBRANES

Pore μm	Thickness ⁽¹⁾ mm	Flow rate ⁽²⁾ ml/min	Bubble point ⁽³⁾ bar
0.2	approx. 110	>21	3.6
0.45	approx. 110	>50	2.7

(1) Acc. DIN 53105

(2) Acc. DIN 58355 average value per cm 2 area at $\Delta p = 1$ bar with water

(3) Acc. DIN 58355, with water

Note: The membrane discs packed in the Hahnemühle product box present the larger pores at the top, when you open the box. This side shall be the side to apply the sample for filtration. Please check before use!
The glossy surface with the closer pores is the lower.

ORDERING INFORMATION MEMBRANES

Pore μm	0.2 μm	0.45 μm
25	PES02025BL	PES04525BL
47	PES02047BL	PES04547BL
50	PES02050BL	PES04550BL
142	PES020142BL	PES045142BL

Packing size: 100 units / box (25 units with 142 mm)
Other versions are available on request





SYRINGE FILTERS

For volumes up to 200ml syringe filters are the most practical tool. Due to its low, unspecific adsorption characteristics for proteins and the outstanding high flow rate, the syringe filters with a PES membrane are very suitable for the filtration of biological solutions with small volumes (<200ml).

The high flow rate and mechanical stability of the membrane enable a very high total throughput and a quick sterilisation of small volumes of biological fluids and particle removal.

For an easy handling they offer a Luer-Lock (male) as outlet and a Luer-Lock (female) as inlet. The PES syringe filters are HPLC tested and show a minimum for extractables of <0,1%. The housing is made of polypropylene.



TECHNICAL DATA - SYRINGE FILTERS

Membrane-diameter	Housing-material	Inlet	Outlet	Filtration area (cm ²)	Recommended sample volume (ml)	Dead volume (µl)	Max. Pressure (bar)
25	Polypropylene	Female Luer-Lock	Male Luer-Slip	4,08	10 – 100	<100	6
30	Polypropylene	Female Luer-Lock	Male Luer-Slip	5,39	>100	<200	6

ORDERING INFORMATION SYRINGE FILTER

Pore size	Non-sterile	Non-sterile	Sterile	Sterile
Ø	0.2 µm	0.45 µm	0.2 µm	0.45 µm
25 mm	SPES02025100	SPES04525100	SPESS0202550	SPESS0452550
30 mm	SPES02030100	SPES04525100	SPESS0203050	SPESS0453050

Packing size: non-sterile: 100 units / box
sterile: 50 units/box

New!

<https://lifescience.hahnemuehle.com>

HAHNEMÜHLE GROUP
Hahnstraße 5
37586 Dassel
Germany
filtration@hahnemuehle.com
lifescience.hahnemuehle.com

Sales region
Germany, Austria, Switzerland
and the Netherlands
Tel: + 5561 791 687
Sales region
Rest of Europe and other countries
Tel: + 5561 791 683

Great Britain, Ireland
Hahnemühle UK
Suite 5, St. Mary's Court
Carleton Forehoe
GB-Norwich, NR9 4AL
Tel + 441063759266
hello@hahnemuehle.com