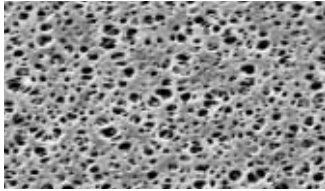


## Polyethersulfone Membrane Filters, Type 154, for the Filtration of Aqueous and Aggressive Solutions

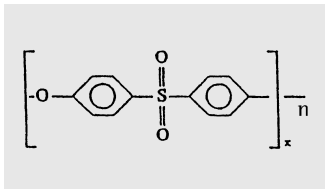


The new polyethersulfone membrane filters have excellent flow speeds and, connected to it, a high filterable volume.

Furthermore, the membranes are very well suitable for samples of the environmental sector.

Biologic and pharmaceutical solutions can be filtered, in the wide pH-range of pH 2-12, because of their low protein adsorption.

The filters with 0.1  $\mu\text{m}$  are used for the ultracleaning of solutions, e.g. in case of nephelometry.



### Typical performance for polyethersulfone membrane filters

Adsorption	10 $\mu\text{g}/\text{cm}^2$ for IgG, 5 $\mu\text{g}/\text{cm}^2$ for BSA, 1.9 $\mu\text{g}/\text{cm}^2$ for Insulin
Bubble point acc. DIN 58355	0.1 $\mu\text{m}$ with Isopropanol/water (60/40) >2.1 bar (30.45 psi) 0.2 $\mu\text{m}$ = 3.2 bar (320 kPa, 46 psi) 0.45 $\mu\text{m}$ = 2.3 bar (33.4 psi)
Chemical compatibility	Resistant to some solutions and aggressive, aqueous solutions, pH 1-13.
Extractables with water	Less than 0.2%
Flow rate for water acc. DIN 58355	Average value per $\text{cm}^2$ area at $\Delta P = 1$ bar (100 kPa, 14.5 psi): 0.1 $\mu\text{m}$ - >7 ml/min. 0.2 $\mu\text{m}$ - >28 ml/min. 0.45 $\mu\text{m}$ - >32 ml/min.
Material	Polyethersulfone (non ionic)
Sterilization	By autoclaving at 121°C or 134°C, gamma radiation or with ethylenoxide.
Sterilizing filtration	Filters with 0.2 $\mu\text{m}$ pore sizes have been validated with the Bacteria Challenge Test.
Thickness acc. DIN 53105	150 $\mu\text{m}$