



CleverFilter®

THE FILTRATION PEOPLE

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MicroPES

Polyethersulfone Membrane Filter Elements

General Specification

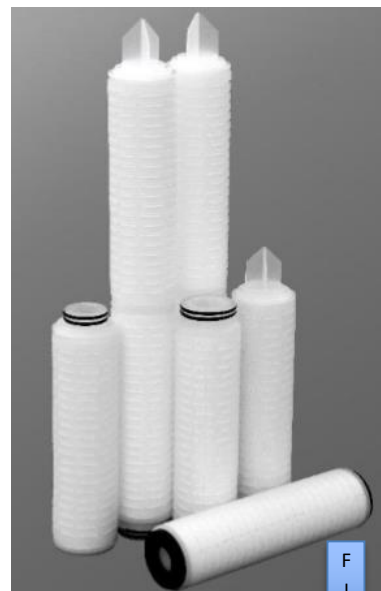
Our **MicroPES** filter element series has been developed for applications where the microbiological retention efficiency is a key performance indicator. Perfect particulate removal rates, however, are achieved as well with this kind of Polyethersulfone membranes. Their characteristic asymmetric pore structure combines highly efficient pre-filtration with a proven reliable absolute rating as well as high flow rates with low pressure drop.

They perfectly fit, of course into all common housings of various other market participants.

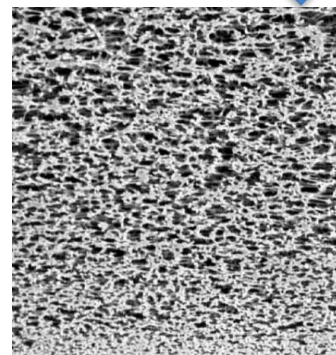
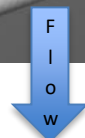
To round off the picture of a persistent high quality filter all **MicroPES** filter series' elements are strictly manufactured under the norms of ISO 9001 / 14001 and OHSAS 18001 in clean rooms. Moreover, they combine this quality with unrivaled cost effectiveness.

Design Features

Filter media:	Highly asymmetric, hydrophilic Polyethersulfone (PES)
Support:	Nonwovens from virgin PP
Hardware:	Outer and inner core as well as end caps from virgin PP
Finish:	Most advanced thermo welding processes without usage of any binders or surfactants
Filter area:	approx. 0.7 m ² per 10" element
Pre-flush:	With ultra-pure water for all E-grade elements
Op. temp.:	Max. 85°C (@ max. allowable Δp of 2.0 bar)
LRV:	> 10 ⁷ (absolute retention)
Special test:	Plastic parts have been tested for food contact materials according to USP Class VI – 121°C



MicroPES filter elements



Asymmetric PES membrane cross section (REM picture)

Applications

- Process water
- Water purification
- Fermentation industry
- Microelectronics
- Food and Beverage
- (Bio-) Pharmaceutical
- Many others



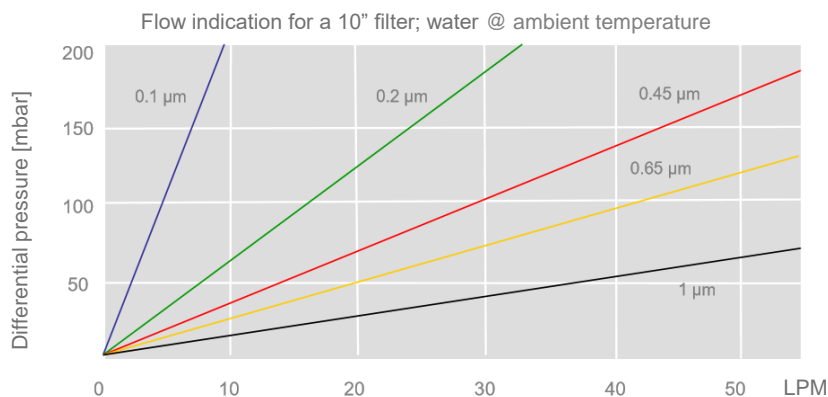
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Asymmetric PES Membrane Filter Elements PES Series

Technical Data



Sanitization / Sterilization Temperature	Max. Differential Pressure [MPa] @ 25 °C	Minimum Bubble Point Value [MPa]
Hot water: 85°C Steam: 121°C / 30 min	0.1 µm: 0.40 (4.0 bar)	0.1 µm: >0.15 (1.5 bar) in 60% IPA + 40% water
	0.2 µm: 0.40 (4.0 bar)	0.2 µm: >0.30 (3.0 bar) in water
	0.45 µm: 0.40 (4.0 bar)	0.45 µm: >0.20 (2.0 bar) in water

Product Code

PES – 91 – F – 3 – 1 – S – R

PES : Micro-Polyethersulfone
Cartridge Filter

Abs. Retention rate [µm]:

91 : 0.1
92 : 0.2
94 : 0.45
96 : 0.65
01 : 1

Category:

E : Microelectronics
F : Food & Beverage, Pharmaceutical
G : General

Blank : no preflushing
R : UPW preflushed
(standard for E-grade)

Sealing material:

S : Silicone
E : EPDM
V : Viton® *

Length [inch]:

1 : 10
2 : 20
3 : 30
4 : 40

Adapter:

3 : SOE 222 - / flat closed
6 : SOE 226 - bayonet / flat closed
7 : SOE 226 - bayonet / fin
8 : SOE 222 - / fin
R : DOE with flat gasket

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