

GR-E membrane filter elements

The E line was specially developed for filtration in the semiconductor and electronics industry.

A major advantage of the elements is a polyethersulfone (PES) membrane with an asymmetric pore size distribution. PES membranes are hydrophilic by nature and offer excellent flow rates, low extractables, broad compatibility, high mechanical strength and temperature resistance.

The E- version is pre-rinsed with 18 MΩ DI water as standard and integrity tested to ensure the highest quality. Each filter element is manufactured in clean rooms.

Key features:

- Manufactured in clean room (according to ISO Class7).
- Pre-rinsed with 18 MΩ DI water.
- Biological safety according to USP Class VI.
- FDA approved materials, meet the relevant CFR criteria.
- Each filter element is marked with serial number and filter fineness and thus always clearly identifiable and traceable.

Performance specifications

Sanitization

The filter elements can be sanitized for up to 30 minutes using hot DI water at 85°C.

Dry cleaning /Sterilization

Compatible with common means of dry cleaning and sterilization in the PH range of 1-14. If you are unclear about the resistance, please contact us directly.

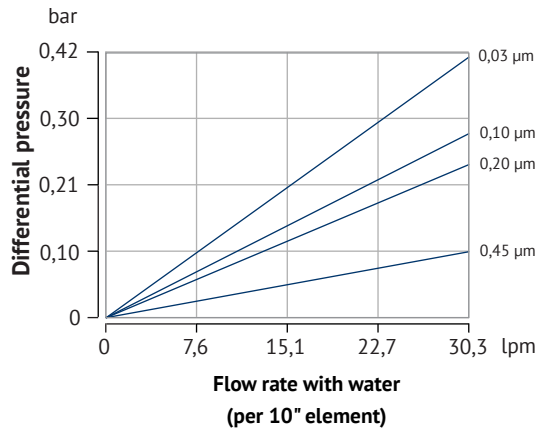
Pre-rinse time

When flushed with 12 liters/min of ultrapure water at a flush time of < 30 minutes per 10" element, the conductivity of 18 MΩ-cm is achieved.

When flushing with 12 liters/min of ultrapure water at a flushing time of < 120 minutes per 10" element, a TOC value of < 10 ppb (parts per billion) is achieved.

Areas of application

- Chemical filtration
- Water treatment
- End point filtration of 18 MΩ DI water
- Filtration of hot DI water
- Point of use filter



Technische Daten

Filter medium:	Asymmetric polyethersulfone membrane
Core, end caps, cage:	Polypropylene
Support layers:	Polypropylene fleece
Gaskets/ O-Rings:	Perbunan, EPDM, Silicon, Viton, Viton (teflon coated)
Micron ratings:	0,03 µm; 0,1 µm; 0,2 µm; 0,45 µm
Lengths:	5"; 9 3/4"; 10"; 20"; 30"; 40"
Inner diameter:	25,4 mm
Outer diameter:	69 mm
Surface area:	0,70 m ² (per 10" filter element)
Working temperature:	Max. 80°C at 1,38 bar working pressure
Differential pressure:	forward: Max. 4,14 bar @ 21°C Max. 2,8 bar @ 71°C backwards: Max. 2,8 bar @ 71°C
Filter exchange:	at the latest at 2.4 bar differential pressure

Integrity test data

Micron rating	Diffusive Air Flow
0,03 µm	≤ 50 cm ³ /min @ 3,1 bar
0,1 µm	≤ 50 cm ³ /min @ 2,8 bar
0,2 µm	≤ 35 cm ³ /min @ 2,1 bar
0,45 µm	≤ 35 cm ³ /min @ 1,4 bar

Order information

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Adapter	Length	Micron rating	Gasket
1 DOE	05 5"	0003 0,03 µm	0 Perbunan
2 226/ flat	93 9 3/4" ¹	001 0,1 µm	1 EPDM
3 222/ flat	10 10"	002 0,2 µm	2 Silikon
6 Ametek (O-Ring inside)	20 20"	004 0,45 µm	4 Viton
7 226/ Fin	30 30"		5 Viton, teflon coated
8 222/ Fin	40 40"		5 Teflon ²

Order example: GR25-E-320-0003-1

¹not for Code 6; ²flat gasket for DOE