

Pleated Polyethersulfone (PES) Membrane for Final Filtration of Ultrapure Water

“LOFMEM-E cartridges from Eaton are specifically engineered for ultrapure water filtration. They are inherently hydrophilic and contain no added surfactants or wetting agents.”

The LOFMEM-E cartridge represents the state of the art in ultrapure water filtration technology. The microelectronics-grade filters are inherently hydrophilic and contain no added surfactants or wetting agents. The polyethersulfone membrane offers superior flow characteristics, high contaminant capacity and consistent removal of submicron particles.

Features and Benefits

- Manufactured, flushed, tested and packaged in an ISO Class 7 cleanroom environment
- Filters are 100% flushed with 18 MΩ-cm DI water and integrity tested.

- Resistivity rinse-up to 18 MΩ-cm and single digit ppb TOC levels in less than 30 minutes at 3 gpm per 10-inch element.
- Available in a variety of end cap/adaptor configurations to fit all industry-standard housings.
- Pore size, lot and serial number are stamped on each filter element for identification and traceability.

Filter Specifications

Media

Asymmetric polyethersulfone membrane

Inner core, end caps, cage

Polypropylene

Support layers

Spunbond polypropylene

Gaskets/O-Rings

Buna-N, EPDM, Silicone, Viton®, Teflon® encapsulated Viton O-Rings

Micron ratings

0.03 μm, 0.1 μm, 0.2 μm, 0.45 μm

Dimensions / Parameters

Nominal lengths

9.75", 10", 20", 30", 40"
(24.7, 25.4, 50.8, 76.2, 101.6 cm)

Outside diameter

2.7" (6.9 cm)

Inside diameter

1.0" (2.54 cm)

Surface area

7.6 ft². (0.72m²) per 10 inch element

Max. sustained operating temperature

180°F (82°C) at 20 psid (1.38 bar)

Max. differential pressure

60 psid @ 80°F (4.14bar @ 27°C)
30 psid @ 160°F (2.07 bar @ 71°C)
15 psid @ 203°F (1.03 bar @ 95°C)

Max. reverse differential pressure

40 psid @ 70°F (2.76 bar @ 21°C)

Recommended change-out pressure

35 psid (2.4 bar)



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Performance Specifications

Hot DI Water

Filter cartridge will withstand temperatures of 185°F (85°C) for up to 30 consecutive minutes.

Cleaning/Sanitization

Compatible with most common chemical cleaning, sanitizing and sterilizing agents and with pH range from 1–14. Consult factory for specific compatibility information.

Rinse-Up Volumes

- Resistivity rinse-up to 18 MΩ-cm: <30 minutes at a flow of 3 gpm per 10-inch element.
- Rinse-up to single digit ppb TOC in <120 minutes at a flow of 3 gpm per 10-inch element.

Integrity Test Specifications

Minimum Diffusive Air Flow (per 10-inch cartridge) values for LOFMEM-E filters wet with water:

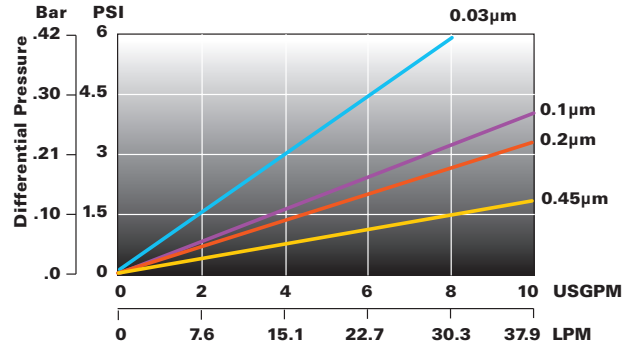
0.03 µm: ≤ 50cc/min @ 45psig (3.1 bar)

0.1 µm: ≤ 50cc/min @ 40psig (2.8 bar)

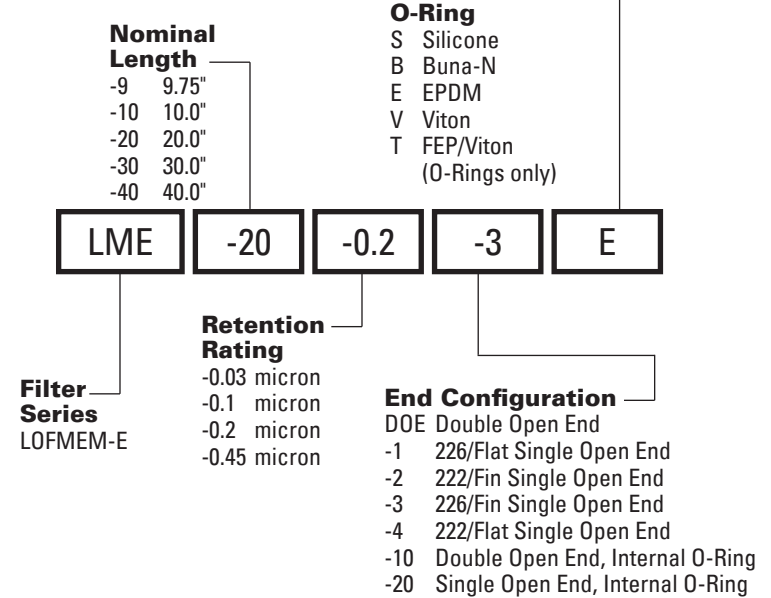
0.2 µm: ≤ 35cc/min @ 30psig (2.1 bar)

0.45 µm: ≤ 35cc/min @ 20psig (1.4 bar)

LOFMEM-E Flow Rate (70°F/21°C per 10" cartridge)



Filter Specification Code



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