

3M™ MicroPES™ 1F M Series Flat Sheet Membrane

Model: 1F M

Product type: Flat Sheet Filtration Membrane

Description: The MicroPES flat sheet membrane is made from a partially sulfonated polyethersulfone polymer. Their asymmetric pore structure offers a perfect balance between highly selective filtration characteristics and high fluxes with minimized flux barriers. In order to enhance the mechanical stability, the membrane has a nonwoven backing.

Available make-up configurations: Rolls

Performance

Parameter	Value
Bubble point (IPA)	≥ 2.0 bar (≥ 29.0 psi)
Transmembrane flow (water, 25° C)	≥ 7 ml/(min cm ² bar) (≥ 448 ml / (min ft ² psi)) (≥ 3.11 ml/(min in ² psi))
Bacteria retention in accordance with the current ASTM F838 guidelines (<i>Brevundimonas diminuta</i>)	0 CFU at a challenge level of not less than 10 ⁷ CFU/cm ²

Performance

Parameter	Value
Membrane	Polyethersulfone
Nonwoven	Polyolefine
Adhesive	Polyolefine
Wetting property	Hydrophilic

Physical properties

Parameter	Value
Thickness	265 ± 50 µm (10.4 ± 2 mil)
Tensile strength	
Longitudinal	≥ 3000 cN / 15 mm
Transversal	≥ 2500 cN / 15 mm
Elongation at break	
Longitudinal	$\geq 15\%$
Transversal	$\geq 15\%$

Flushing recommendation:

This product is known to contain residual manufacturing solvents. The customer is responsible for determining and implementing the appropriate transmembrane washing conditions to remove these residuals based on their assessment, requirements, and particular application needs.

Intended use: The 3M™ MicroPES™ Laminated Flat Sheet Membrane products are intended for further processing by OEMs into frames for microfiltration systems. Typical applications are Membrane Bioreactor for industrial wastewater and municipal wastewater where the product can be integrated in accordance with the product's use requirements and instructions. Furthermore, 3M™ MicroPES™ Laminated Flat Sheet Membrane is intended for biopharmaceutical and industrial filtration applications for OEM-Manufacturers. Since there are many factors that can affect a product's use, the customer and user remain responsible for determining whether the Solventum product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the Solventum product in user's application for safety, regulatory compliance, performance and any other requirements.

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