

3M™ DuraPES™ 450 Series Flat Sheet Membrane**Model:** 450**Product Type:** Flat Sheet Filtration Membrane

Description: The DuraPES flat sheet membrane is made from a partially sulfonated polyethersulfone polymer. Their highly asymmetric pore structure offers a perfect balance between highly selective filtration characteristics and high fluxes with minimized flux barriers.

Available Make-up Configurations: Rolls**Performance**

Parameter	Value
Bubble point (water, 25° C)	3.45 bar ± 0.35 bar (50.03 psi ± 5.07 psi)
Transmembrane flow (water, 25° C)	≥ 75 ml/(min cm ² bar) (≥ 4804.33 ml / (min ft ² psi)) (≥ 33.36 ml/(min in ² psi))
Bacteria retention in accordance with the current ASTM F838 guidelines (<i>Serratia marcescens</i>)	≥ 7 LRV at a challenge level of not less than 10 ⁷ CFU/cm ²

Materials of Construction

Polyethersulfone

Physical Properties

Parameter	Value
Thickness	140 µm ± 10 µm (5.512 mil ± 0.394 mil)
Tensile strength	
Longitudinal	≥550 cN / 15 mm
Transversal	≥450 cN / 15 mm
Elongation at break	
Longitudinal	≥ 10%
Transversal	≥ 15%
Change of length (steam, 121° C)	≤ 3 %

All data is based on internal 3M testing procedures.

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
<p>3M™ DuraPES™ are flat sheet liquid microfiltration membrane products intended for use by customers, such as OEMs, in their manufacture of liquid microfiltration cartridges and liquid microfiltration systems in various applications such as industrial, food and beverage, pharmaceutical, and medical device, etc. requiring specialized liquid microfiltration in accordance with the product's use requirements and instructions.</p> <p>Since there are many factors that can affect a product's use, the customer and user remain responsible for determining whether the 3M product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the 3M product in user's application for safety, regulatory compliance, performance, and any other requirements.</p>
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<p>3M advises against the use of 3M™ DuraPES™ Flat Sheet Membrane products in any application other than the stated intended use(s), since other applications have not been evaluated by 3M and may result in an unsafe or unintended condition.</p>
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3M Company
3M Separation and Purification Sciences
Division
13840 South Lakes Drive
Charlotte, North Carolina 28273 USA
Phone: +1 980 859 5400
3M.com/membrana

3M Deutschland GmbH
3M Separation and Purification Sciences Division
Öhder Straße 28
42289 Wuppertal, Germany
Phone +49 202 6099-0

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