

# 3M™ MicroPES™ Flat Membrane Type 4F

Chemical Composition	
Polymer	Polyethersulfone
Wetting property	Hydrophilic

Physical Properties	
Thickness	110 ± 10 µm (4.3 ± 0.4 mil)
<b>Tensile strength</b>	
Longitudinal	≥ 900 cN/15 mm
Transversal	≥ 800 cN/15 mm
<b>Elongation at break</b>	
Longitudinal	≥ 25%
Transversal	≥ 30%
Change of length (steam, 121 °C)	≤ 3 %

Membrane Performance Characteristics	
Bubble point (in water)	3.0 ± 0.25 bar (43.5 ± 3.6 psi)
Transmembrane flow (water, 25 °C)	≥ 60 ml/(min cm <sup>2</sup> bar) (≥ 3843 ml/(min ft <sup>2</sup> psi)) (≥ 26.69 ml/(min in <sup>2</sup> psi))
Retention of bacteria ( <i>Serratia marcescens</i> )	≥ 7 log/cm <sup>2</sup> reduction value

Available Make-up Configurations	
Rolls	

All specifications are based on 3M internal test procedures.

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