



# Forward Osmosis Membrane

The **Aquaporin Inside™** technology is based on the aquaporin protein – Nature's own selective and extremely effective water channel. Aquaporin water channels have been developed through billions of years of evolution, and are now ready to revolutionise industrial water treatment.

**Aquaporin Inside™** membranes are protected by several issued and pending patents. Please visit [www.aquaporin.dk/patents](http://www.aquaporin.dk/patents) for updated information.

## MEMBRANE SPECIFICATIONS

<b>Membrane Type</b>	Forward Osmosis Membrane
<b>Water Flux</b>	> 7.0 ± 0.5 LMH or L/m <sup>2</sup> .hr (n=3)
<b>Salt Flux</b>	< 2.5 ± 0.5 gMH or g/m <sup>2</sup> .hr (n=3)
<b>Rejection to Calcein*</b>	99.0 % ± 0.5 % (n=3)

## QUALITY CHECK TEST CONDITIONS

<b>Mode</b>	Active – layer facing feed side (ALFS)
<b>Feed Solution</b>	Standard Test - Deionized water (4 ppm NaCl, <10 µS/cm) Rejection Test - 5 µM of Calcein* in Deionized water
<b>Draw Solution</b>	1 M NaCl aqueous solution (58,440 ppm NaCl, 80-90 mS/cm)
<b>Temperature</b>	24 – 25 °C
<b>Cross-flow velocity</b>	5 cm/s

\*Calcein is a fluorescent dye, used as trace contaminant for rejection evaluation (C<sub>30</sub>H<sub>26</sub>N<sub>2</sub>O<sub>13</sub> – Mw = 622.55 g/mol)

## OTHER INFORMATION

<b>Packaging</b>	Aquaporin Inside™ membrane is sealed in a protective plastic bag.
<b>Shelf-life</b>	3 Months
<b>Storage Condition</b>	4 °C in deionized water (39 °F)
<b>Handling</b>	Handle with care. Avoid folding, scratching and stretching the membrane. We recommend that test coupons are handled and/or held only along their edges and not at the center. Users are advised to wear gloves for handling.

This Aquaporin Inside™ membrane is a test membrane and is for experimental use, only. The product is delivered non-sterile and has not been approved for any use in relation to products for human consumption, including food applications personal care products and medical products.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.