# Membrane Specifications

<table>
<thead>
<tr>
<th>Membrane Type</th>
<th>Cation Membrane</th>
<th>Anion Membrane</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p/n I-100, MI-100</td>
<td>p/n I-200, MI-200</td>
</tr>
<tr>
<td>Chemical Form</td>
<td>Na(+) Form</td>
<td>Cl(−) Form</td>
</tr>
<tr>
<td>Standard Width, Dry:</td>
<td>13 in</td>
<td>13 cm</td>
</tr>
<tr>
<td></td>
<td>33 cm</td>
<td>33 cm</td>
</tr>
<tr>
<td>Standard Length, Dry:</td>
<td>Up to 100</td>
<td>Up to 100</td>
</tr>
<tr>
<td></td>
<td>Up to 30.5</td>
<td>Up to 30.5</td>
</tr>
<tr>
<td>Membrane Thickness,</td>
<td>0.0130 – 0.0140</td>
<td>0.0130 – 0.0140</td>
</tr>
<tr>
<td>DRY:</td>
<td>0.33 – 0.35</td>
<td>0.33 – 0.35</td>
</tr>
<tr>
<td>Electrical Resistance</td>
<td>(ohm-cm², DC)</td>
<td>(ohm-cm², DC)</td>
</tr>
<tr>
<td>0.5N NaCl</td>
<td>9.5 – 14.5</td>
<td>7.5 – 12.5</td>
</tr>
<tr>
<td>Water Permeability</td>
<td>Less than 0.0005</td>
<td>Less than 0.0005</td>
</tr>
<tr>
<td>Mullen Burst Test</td>
<td>Typical: 44 – 47 PSI</td>
<td>Minimum: 41 – 44 PSI</td>
</tr>
<tr>
<td></td>
<td>15 PSI</td>
<td>15 PSI</td>
</tr>
<tr>
<td>Total Capacity</td>
<td>Maximum 400 – 500 meq/sqm</td>
<td>Maximum 700 – 900 meq/sqm</td>
</tr>
<tr>
<td>Normal Temperature Stab</td>
<td>90°C</td>
<td>60°C</td>
</tr>
<tr>
<td>H/OH form</td>
<td>90°C</td>
<td>90°C</td>
</tr>
<tr>
<td>Na/Cl form (as supplied)</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>CHEMICAL STABILITY @ 50°C</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>Up to 36% H₂SO₄, HCL</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>Up to 35% NaOH pH 0 – 14</td>
<td>Stable</td>
<td>Stable</td>
</tr>
<tr>
<td>PHYSICAL STABILITY USING CHEMICALS</td>
<td>NaOH under 8% to avoid osmotic shock</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**
- **Excellion™** should be preconditioned by expanding in 85 – 90°C DI water for 48 hours.
- Membranes swell 15 – 25% in all dimensions when preconditioned.
- Custom ion-exchange membranes can be made on request.

Manufactured under US Patents 6,503,957 and 6,716,888.

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## General Limited Warranty

Excellion Ion Exchange Membranes are offered for sale and warranted, as indicated below, by SnowPure LLC.

All information included herein falls within the normal range of product properties and is based on technical data that SnowPure believes to be reliable. This information should not be used to establish specification limits, nor used alone as the basis of design. It is the user’s responsibility to determine the suitability of the product described in this bulletin and that the user’s particular conditions of use present no health or safety hazards. Product samples are routinely offered by SnowPure to establish suitability and conditions of use, both of which are the sole obligation of the user.

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In the event of a claim under the foregoing warranty, SnowPure’s sole obligation shall be to replace any product or part thereof that proves defective in material or workmanship provided the customer notifies us of any such defect within 30 days of delivery. The membrane in question must be returned to SnowPure for review and testing only with prior authorization. SnowPure shall not be liable for consequential, incidental or any other damages resulting from economic loss or property damages sustained by user from the use of its products.

Customer agrees that if exported, these commodities will be exported from the United States in accordance with U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

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Excellion™ Membranes, SnowPure Water Technologies
130-A Calle Iglesia
San Clemente, CA 92672 USA

email: membranes@snowpure.com
phone: +1.949.240.2188