A Cation Exchange Membrane for Proton Exchange Membrane Water Electrolysis

Features
- Sulfonic fluoropolymer single-layer membrane
- High chemical resistance
- High mechanical strength
- Can be reinforced by special PTFE fabric
- Easy to handle
- High ion exchange capacity
- Very low resistance with high ion selectivity

FORBLUE™ S-SERIES Grades

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Sx-1235DH</th>
<th>Sx-0935DH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counter Ion</td>
<td>H⁺</td>
<td>H⁺</td>
<td></td>
</tr>
<tr>
<td>Dry / wet</td>
<td>Dry</td>
<td>Dry</td>
<td></td>
</tr>
<tr>
<td>Thickness”1”</td>
<td>μm</td>
<td>140</td>
<td>90</td>
</tr>
<tr>
<td>Ion Exchange Capacity</td>
<td>meq/g</td>
<td>1.25</td>
<td>1.25</td>
</tr>
<tr>
<td>Characteristics</td>
<td></td>
<td>Reinforcement</td>
<td>Reinforcement</td>
</tr>
</tbody>
</table>

*1 Thickness = Values are test data, without guarantee. DH data shows dry state thickness and WN data show wet state thickness.
*2 Moisture content of polymer item = Evaluated the value after replacing the counter ion to H⁺ and immersion in water, 100°C, 1 hr.
**Performance of Sx-0935DH**
Lower cell voltage compared to conventional membrane

**Performance Stability**
Stable performance in 1500 hrs of operation

**Gas Crossover Comparison**

The data are presented without any guarantee or warranty, express or implied.

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