Aquivion® PW79S-Li
perfluorosulfonic acid lithium salt

Aquivion® PW79S-Li is a coarse powder based on the short-side-chain (SSC) copolymer of Tetrafluoroethylene and the Sulfonyl Fluoride Vinyl Ether (SFVE) CF2=CF-O-(CF2)2-SO2F produced by Solvay. The resulting perfluoropolymer’s functional groups are in their lithium sulfonate form, SO3Li. Aquivion® PW79S-Li is chemically stabilized (denoted by the S-suffix).

This material is characterized by a low equivalent weight and a high ionic exchange capacity. It is insoluble in water, acids or bases and in most solvents unless extreme conditions would be applied.

Aquivion® PW79S-Li can be mechanically processed into blends, films or substrate coatings and preferably accompanied or followed by a heat treatment. Furthermore, it can be dissolved in organic solvents that are dipolar aprotic such as N-ethyl-2-pyrrolidone (NEP) and dimethyl sulfoxide. To facilitate the dissolution, slightly increase the temperature to 50-60°C.

For casting processes you can also consider Aquivion® D79-25BS-Li dispersion.

Please visit Aquivion.com for more information.
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General
Material Status
• Commercial: Active

Availability
• Asia Pacific
• Europe
• North America

Appearance
• White

Forms
• Powder

Physical

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value</th>
<th>Unit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equivalent Weight (EW) (^1)</td>
<td>770 to 810</td>
<td>g/eq</td>
<td>Internal Method</td>
</tr>
</tbody>
</table>

Additional Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Typical Value</th>
<th>Unit</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ionic Exchange Capacity</td>
<td>1.23 to 1.30</td>
<td>meq/g</td>
<td>Internal Method</td>
</tr>
</tbody>
</table>

HEALTH, SAFETY AND ENVIRONMENT

• Aquivion® powders are not harmful if used and handled according to standard processing procedures, such as those outlined in "The Guide to the Safe Handling of Fluoropolymer Resins" issued by the Society of the Plastics Industry. If handled inappropriately, powders may release harmful toxic chemicals. Please refer to corresponding Material Safety Data Sheets for more information on handling and safety.

PACKAGING, SHIPMENT AND STORAGE

• Aquivion® powders are delivered in standard polypropylene bottles and drums. Products should be kept closed in their original packaging.

Notes

Typical properties: these are not to be construed as specifications.

\(^1\) eq = (mol SO3Li)
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Safety Data Sheets (SDS) are available by emailing us or contacting your sales representative. Always consult the appropriate SDS before using any of our products.

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