Chemical nature

Acronal 4053 X is a water-based dispersion polymer for liquid applied sound damping (LASD) application. It is a medium Tg acrylic dispersion polymer. It has a lower viscosity than Acronal DS 3502 for easier handling and blending.

Properties

Typical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids content</td>
<td>%</td>
<td>54 – 58</td>
</tr>
<tr>
<td>pH value</td>
<td></td>
<td>5 – 8</td>
</tr>
<tr>
<td>Viscosity at 23 °C (Brookfield RV, Spindle #3, at 20 rpm)</td>
<td>cps</td>
<td>200 – 4000</td>
</tr>
<tr>
<td>Viscosity at 23 °C (23°C, 250 1/s, DIN EN ISO 3219)</td>
<td>mPa*s</td>
<td>50 – 800</td>
</tr>
</tbody>
</table>

Further properties of the dispersion

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>g/cm³</td>
<td>approx. 1.04</td>
</tr>
<tr>
<td>Freeze/thaw resistance</td>
<td></td>
<td>not resistant to freezing</td>
</tr>
<tr>
<td>Dispersion type</td>
<td></td>
<td>anionic</td>
</tr>
<tr>
<td>Glass transition temperature Tg (DSC)</td>
<td>°C</td>
<td>ca. 4</td>
</tr>
</tbody>
</table>

* These typical values should not be interpreted as specifications.

Application

Features

Acronal 4053 X can also be employed in acoustic compounds, which are used in machinery and automotive damping treatments. It is used as a binder for aqueous compounds that are capable of being sprayed. Acoustic compounds formulated with Acronal 4053 X display maximum noise suppression in the 10 – 20 °C range.

Processing

When Acronal 4053 X is mixed with other materials, the final mixture should be adjusted to pH > 6, which increases the mechanical stability.

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Acronal 4053 X.
Storage

Please refer to the “Handling and Storage of polymer dispersions” brochure.

Important

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