Mowilith DHS S1

Technical Data Sheet

Effective date: 2013/02/08

Characteristics

Mowilith DHS S1 is an aqueous polymer dispersion based on vinyl acetate.

Industries

Mowilith DHS S1 is a raw material for the adhesives industry. It is used for the formulation of paper, packaging and converting adhesives, as well as for woodworking, building and flooring adhesives.

Stabilization

Polyvinyl alcohol

Why Mowilith DHS S1?

• fast setting
• high thermal stability of glued joints with high ultimate strength
• compatibility with solvents and plasticizers, yielding films of high toughness, e.g. to formulate very fast setting paper and book-binding adhesives
• shear stable to a large extent

Performance may vary depending on your formulation. Please contact our Application Technology Group to assist you.

Supply Specification

<table>
<thead>
<tr>
<th>Supply Specification</th>
<th>Adjusted Standard*</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids content (130 °C; 30 min)</td>
<td>ISO 3251</td>
<td>%</td>
<td>49 - 51</td>
</tr>
<tr>
<td>Brookfield viscosity (25 °C; 7/20)</td>
<td>ISO 2555</td>
<td>mPas</td>
<td>30000 - 60000</td>
</tr>
<tr>
<td>pH value (1:1 diluted by water)</td>
<td>ISO 976</td>
<td></td>
<td>3.5 – 5.5</td>
</tr>
</tbody>
</table>

Further Typical Properties

<table>
<thead>
<tr>
<th>Further Typical Properties</th>
<th>Adjusted Standard*</th>
<th>Unit</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Particle size</td>
<td></td>
<td>µm</td>
<td>approx. 0.4 – 2.5</td>
</tr>
<tr>
<td>Minimum film forming temperature</td>
<td>ISO 2115</td>
<td>°C</td>
<td>approx. 14</td>
</tr>
<tr>
<td>Glass transition temperature</td>
<td>ISO 16805</td>
<td>°C</td>
<td>approx. 42</td>
</tr>
<tr>
<td>Appearance of polymer film</td>
<td></td>
<td></td>
<td>slightly opaque, tack-free</td>
</tr>
</tbody>
</table>

* Standard adjusted to Celanese method. Further details regarding the test method can be made available on request.

Your future is our focus...worldwide.
Guidelines for Preservation and Storage

The dispersion contains some initial biocides to impede attack by microorganisms.

Mowilith DHS S1 has a minimum shelf life of 6 months from the dispatch date in its original unopened packaging, provided the product is stored hygienically at temperatures between 5 and 35 °C, avoiding frost and direct sunlight.

In order to protect the product appropriately against microbiological attack after the first opening and storage thereafter in opened drums, tanks or other storage facilities, please consider adding a suitable preservative. All tanks and pipework should be kept adequately clean. For bulk storage, regular stirring is common practice.

Skins or lumps can form during storage and transport of the dispersion due to its film forming nature. A filtration or sieve process is recommended before further processing.

Product Safety, Regulatory Status and Environmental Protection

Please employ the usual protective measures when handling aqueous polymer emulsions. Further product safety or product regulatory information can be obtained online from our safety data sheets (http://www.celanese-emulsions.com/msds/) and our regulatory data sheets which are available on request.

As of its effective date, this Technical Data Sheet supersedes and is in lieu of all former Technical Data Sheets of Mowilith DHS S1.

This information is based on our present state of knowledge and is intended to provide general notes on our products and their possible uses. However, we do not assume any liability whatsoever for the accuracy or completeness of the information contained herein. It should therefore not be construed as an expressed or implied warranty of specific properties of the products or for its suitability for a particular use. Any existing industrial property rights must be observed. The quality of our products is governed by our General Conditions of Sale. In every case we urge and recommend that purchasers before using any product in full scale production make their own tests to determine to their own satisfaction whether the product is of acceptable quality and is suitable for their particular purposes under their own operating conditions.