RHEOLATE® FX 1080

Associative Thickening Agent

GENERAL INFORMATION
RHEOLATE® FX 1080 is a very low VOC, high efficiency, high active content polyether polyurethane thickener for the use in aqueous coatings. The product is supplied as a liquid, is convenient to handle and ready for immediate use.

APPLICATION AND PROPERTIES
RHEOLATE® FX 1080 is applicable in many aqueous systems such as emulsions, dispersions and emulsion paints e.g. based on polyacrylic-, polyvinyl-acetate homopolymers and most terpolymers. RHEOLATE® FX 1080 is recommended for a wide range of paint formulations, from gloss to matt finishes.

RHEOLATE® FX 1080 improves the anti-settling and sag resistance of aqueous paints by increasing the mid and low shear viscosity.

RHEOLATE® FX 1080 acts as a binding agent in the coating and is totally compatible with the standard latexes used in emulsion paints. Paints made with RHEOLATE® FX 1080 have a higher degree of water resistance and increased scrub resistance than those made with cellulosic thickeners. Higher gloss levels in gloss emulsion paints are obtained by using RHEOLATE® FX 1080 as opposed to polyacrylates or cellulosic thickeners. Combining RHEOLATE® FX 1080 with a suitable pigment dispersant such as NUOSPERSE® FX 600 gives outstanding gloss performance. For other emulsion paints we recommend the combination of RHEOLATE® FX 1080 and NUOSPERSE® FX 504, for example.

PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance 20 °C</td>
<td>Clear liquid</td>
</tr>
<tr>
<td>Active content</td>
<td>33%</td>
</tr>
<tr>
<td>Density 20°C (ISO 2811-2)</td>
<td>approx. 1070 kg/m³</td>
</tr>
<tr>
<td>Viscosity, 23°C (ASTM D 2196)</td>
<td>5 – 15 Pa.s</td>
</tr>
<tr>
<td>Color, 50% in IPA (DIN-EN 1557)</td>
<td>max. 125 Apha</td>
</tr>
<tr>
<td>Solubility</td>
<td>soluble in water and water/glycol mixtures</td>
</tr>
<tr>
<td>Composition</td>
<td>hydrophobic urethane polymer in a mixture of solvents</td>
</tr>
</tbody>
</table>

NOTE: The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchasers will be subject to a separate agreement which will not incorporate this document.

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RHEOLATE® FX 1080

Feature
- based on a polyether polyurethane
- increases mid and low shear viscosity
- non-elastic flow

Consequence
- provides longterm viscosity stability
- less sensitive to hydrolysis
- decreased water sensitivity
- improved anti-settling properties and sag resistance
- reduces roller spattering

INCORPORATION
RHEOLATE® FX 1080 may be added to the milling paste or during the let-down stage. Best results are obtained when using a part in the milling paste and a part during the let-down.

The quantity of RHEOLATE® FX 1080 to be used is strongly dependent on the desired rheology and the composition of the paint-system. In most cases a concentration of 0.3 – 2.0% RHEOLATE® FX 1080 is sufficient. However, it is recommended to determine the optimum dosage for each case individually.

In some high PVC-formulations it may be useful to use RHEOLATE® FX 1080 in combination with cellulosic thickeners.

Dilution methods:
A. Addition to the pigment grind:
   RHEOLATE® FX 1080 as such can be incorporated together with the other liquid components of the mill-base.

B. Addition during let-down or as post-additive:
   RHEOLATE® FX 1080 should be diluted with water.

STORAGE CONDITIONS
RHEOLATE® FX 1080 should be stored frost-free.

HEALTH AND SAFETY DATA
Before using this product please consult our Material Safety Data Sheet (MSDS) for information on safe handling and storage. MSDS can be found on the company website at www.elementis-specialties.com.

SHELF LIFE
RHEOLATE® FX 1080 has a shelf life of 3 (three) years from date of manufacture.

QUALITY ASSURANCE
Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.