/ Chemical Description

Dispersion of an oil-based elastomer-copolymer in water

/ Physical Data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>approx. 1.0 g/cm³</td>
</tr>
<tr>
<td>Active Agent Content</td>
<td>approx. 45 %</td>
</tr>
<tr>
<td>Reactive Thinner</td>
<td>water</td>
</tr>
<tr>
<td>Viscosity</td>
<td>approx. 100 mPa-s</td>
</tr>
<tr>
<td>OH-content</td>
<td>approx. 2.1 % (based on solid content)</td>
</tr>
<tr>
<td>Acid Value</td>
<td>approx. 15 mg KOH/g (based on solid content)</td>
</tr>
<tr>
<td>Particle Size d50</td>
<td>approx. 8 µm</td>
</tr>
<tr>
<td>Particle Size d90</td>
<td>approx. 18 µm</td>
</tr>
<tr>
<td>Appearance</td>
<td>white (light beige) dispersion / liquid</td>
</tr>
</tbody>
</table>

/ Properties

Deuteron SO 300 is a fine dispersion of an elastomer in water. It imparts coatings with a “soft touch” surface, even if the binder is not an especially soft or elastic type. At the same time it acts as a matting agent. The effect depends on the dosage and the system’s other components, particularly the binder. Deuteron SO 300 is temperature resistant up to 160 °C.

The small particle size makes the product suitable for thin-film applications. Deuteron SO 300 contains no waxes and thus does not negatively affect the recoatability.

In 2-component lacquers, the inherent OH-functionality allows the product to be cross-linked in the coating matrix. This can lead to higher mechanical and chemical resistances, which are not attainable by conventional means of adjusting “soft touch” and matting.

/ Application

Deuteron SO 300 is intended for all water-based lacquers, coatings and printing inks which have to offer a special feel and matting up to a “soft touch”. It can be used in systems of all ranges of film thickness. Deuteron SO 300 can be combined with other organic matting agents, waxes and silicas.

/ Dosage

The optimum dosage is highly dependent on the binders used in the formulation as well as the desired surface characteristics and has to be determined by own trials. For initial experiments a dosage of approx. 10 - 20 % is recommended. Deuteron SO 300 is very compatible with coatings, therefore it is possible to use large dosages in order to achieve extreme effects.

/ Processing

Deuteron SO 300 should be incorporated homogeneously into the lacquer by stirrer. Foam generation should be avoided. The product should best be added slowly to the binder phase. Any shocks or spikes of water, solvent, or a large concentration should be avoided as well. The material should not be allowed to dry, because the resulting agglomerates are difficult to disperse. Any agglomeration has to be removed by sieving / screening the final system.

/ Storage conditions

Deuteron SO 300 can be stored in tightly sealed containers for at least 12 months at room temperature. The product must be stored under frost-free conditions. It is recommended to stir the product before use.
/ Package sizes

Plastic hobbock (30 kg net)
Plastic drum (220 kg net)

/ Safety Regulations

According to Regulation (EC) No. 1272/2008
Deuteron SO 300 is not classified as a dangerous product and therefore does not need to be labeled.

/ Other Soft-Feel Additives from our portfolio

Deuteron SO 100  Deuteron MK  Deuteron UV RS20
Deuteron SO 300  Deuteron MK-F
Deuteron SO 500  Deuteron MK-F6
Deuteron PMH C