DISPARLON® 6500  
(Anti-Slumping agent)

DISPARLON 6500 is a unique non-reactive polyamide thixotropic supplied as a powder. It is recommended for sealants, adhesives, and coatings systems. DISPARLON 6500 may be incorporated at higher temperatures than castor wax products. It provides strong anti-sagging and anti-slumping without seeding or loss of effectiveness on aging.

ADVANTAGES

● Excellent cost/performance:
  100 % active and produces a strong thixotropic structure free of slumping.

● High production efficiency:
  Permits incorporation on high speed grinding equipment at higher temperatures than castor thixotropes. No overnight standing required.

● Thixotropy with good heat resistance and stability on ageing.
  6500 assures good shelf stability and does not cause seeding or loss of effect. 6500 is used in adhesives to prevent slumping due to high temperatures.

APPLICATIONS

For sealants and adhesives:

6500 is used in sealants such as oil based, urethane, silicone, MS Polymer, and thiokol etc. as anti-slumping agent and is quite effective at higher temperatures during application and thereafter. In synthetic rubber, epoxy, acrylic/cyanamide adhesives it prevents settling of extenders and prevents phase separation. When used in rubber adhesives for laminating decorative films to plywood panels, 6500 prevents the penetration of the adhesive into wood substrate without reducing initial bonding strength at heat pressing.
INCORPORATION

6500 is usually added during pre-mixing and is swollen when the mixture is dispersed at activation temperature. This product, unlike castor waxes, permits incorporation on heat generating high speed grinding equipment and does not require overnight standing for full rheology development.

Additive levels
For sealant and adhesives: 0.6 ~ 2.0 % by wt. of final formulation

Method
- Use in non-polar solvent systems 6500 is designed to be dispersed on heat generating high speed grinding equipment to activate at 50~80℃. Such equipment includes a sand mill, attritor, dyno mill, high speed dissolver, etc. Activation temperature can vary depending on the solvent and resin used, and their ratio. Prior tests are required to ascertain optimum dispersing temperature.
- Use in non-solvent systems
Again there could be some variation in dispersing temperature depending on the vehicle and its content. 70 ~100 ℃ is suggested for swelling and dispersing 6500 in non-solvent systems.

TYPICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White to light yellow fine powder</td>
</tr>
<tr>
<td>Melting point</td>
<td>Approx. 123 ℃</td>
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<tr>
<td>Bulk density</td>
<td>Approx. 0.14</td>
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<tr>
<td>Specific Gravity</td>
<td>0.99 g/cm³</td>
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<tr>
<td>Fineness of dispersion</td>
<td>Max .30 μ</td>
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</tbody>
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CAUTION

In paint and coatings:
6500 can sometimes cause poor recoatability or intercoat adhesion when this product is used in paint and coatings. Thorough preliminary recoat testing is recommended.
Test for recoat ability of epoxy coating in an enclosed atmosphere:
1. A vessel is chosen to contain solvent and a coated panel, so that the panel can be laid flat a few inches above the surface of the solvent. Examples of a suitable vessel would be a dessicator jar or a glass fish tank. The solvents to be used will depend upon the solvents used in the two components of the paint formula. For example, in the Navy military specification coating, butanol and naphtha are used. The vessel is covered to attain an atmosphere saturated with the solvents.
2. The two components of the coating are mixed, capped and set aside for the prescribed induction time. After the induction time the panel is coated with at least 10 wet mils of paint and quickly inserted into the saturated atmosphere within the vessel. Make sure the vessel remains covered.
3. The coating is allowed to cure at least 24 hours in the saturated atmosphere at ambient temperature.
4. The coating is removed from the test container after 24 hours and allowed to dry at least 6 hours under ambient conditions.
5. The cured coated panel is then placed under refrigeration to attain a temperature not to exceed 10_C (50_F).
6. Prepare the second coat of paint (mix the two components of the epoxy coating, cap and set aside for induction time). Immediately following the induction time place the mixed paint under refrigeration to attain a temperature not to exceed 10_C (50_F).
7. The panel is temporarily removed from refrigeration for application of the second coat. It is recoated with the second cold coating and returned to refrigeration for at least one hour.
8. After 1 hour the recoated panel is removed from refrigeration to finish curing overnight (at ambient temperature).
9. The coating is tested for adhesion using the crosshatch adhesion test.

DRYING FILM IN A SEALED CONTAINER CONTAINING SOLVENT

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