AFCONA – 4010

**Chemical Composition**
Modified polyurethane polymer

**Product general description**
Polymeric dispersant used mainly for inorganic pigments and certain organic pigments

**Product Properties**
AFCONA-4010 is a polymeric dispersant principally developed for stabilizing inorganic pigments such as TiO₂, iron oxides, and matting agents. It can be used in almost all solvent-based coating systems, because AFCONA – 4010 has very good compatibility with almost all resins used in coatings.

The special properties and recommended systems for AFCONA – 4010 include:

1) AFCONA – 4010 is a very good dispersant for TiO₂ as it offers improved whiteness and hiding power.
2) AFCONA – 4010 is widely used in the preparation of matting agent pastes. It gives better matting agent orientation, constant gloss level after storage and a soft feel matting appearance. A suggested formulation of matting agent paste is as follows:
   - Resin (50-60% solid) 30 – 35%
   - Matting agent 20 – 30%
   - AFCONA 4010 4 – 6%
   - Solvents combination remainder
3) AFCONA – 4010 may be used as a co-grinding dispersant in mill bases. It also can be post-added for the correction of flooding and floating effects.
4) AFCONA – 4010 is most often used as a dispersant for inorganic pigments and some organic pigments. It is always possible to combine pigments stabilized with AFCONA-4010 together with organic pigments stabilized with higher molecular weight dispersants.

Note: AFCONA – 4010 will become slightly hazy at temperatures of 5°C and below, but this will not influence the performance of the product.

**Product specification**

<table>
<thead>
<tr>
<th>Active ingredients</th>
<th>50 – 54%</th>
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<tbody>
<tr>
<td>Solvents</td>
<td>Butylacetate / Methoxy Propyl Acetate/ Alkylbenzene / sec-Butanol</td>
</tr>
<tr>
<td>Density at 20 °C</td>
<td>0.96 – 1.00 g/cm³</td>
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<tr>
<td>Amine value</td>
<td>6 - 16 mg KOH/g</td>
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<tr>
<td>Acid value</td>
<td>8 - 18 mg KOH/g</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>24°C</td>
</tr>
<tr>
<td>Color</td>
<td>max.6</td>
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**Addition and dosage**
Add AFCONA-4010 according to the dosages listed below, which should be calculated based on the weight of pigment in the formula:
   - Titanium dioxide : 2 - 4% (as supplied)
   - Inorganic pigments : 5 - 10% (as supplied)
   - Organic pigments : 20 - 40% (as supplied)
   - Carbon blacks : 30 - 60% (as supplied)

**Incorporation**
AFCONA-4010 should be incorporated in the mill base before adding pigments.

**Storage**
AFCONA-4010 should be stored in a cool, dry place. When kept in its original, unopened container, it will keep up to 5 years from the date of manufacture. The expiration date is indicated on the container.

**Packaging**
55 lb and 419 lb non-returnable containers