CRAYVALLAC® EXTRA

Micronised polyamide rheology modifier suitable for high-solids and solvent-free applications
Polyamide

TYPICAL CHARACTERISTICS

Nature	**Polyamide**
Appearance	**Off-white micronized powder**
Solid Content (%)	**100**
Active Content (%)	**100**
Specific gravity	**1.01**
Particle size distribution	**DV.1 min: 1.8 µm / DV.9 max: 15 µm**

DESCRIPTION

CRAYVALLAC® EXTRA is a high performance, micronised amide wax rheology modifier suitable for high-solids and solvent-free applications with very high robustness. It is especially recommended in 2K epoxy primers for its high temperature tolerance.CRAYVALLAC® EXTRA overcomes those difficulties which exist with hydrogenated castor oil based rheology modifiers e.g. seeding and false-body and that were maximised when activation was performed at high temperatures.

RECOMMENDED ADDITION LEVEL

0.2-1.5% under heat and shear

STANDARD PACKAGING

Other packaging may be available upon request

- 20 Kg Bag

HANDLING & STORAGE

It should be stored in the original containers in a dry place at temperatures between 5°C (41°F) and 30°C (86°F). Avoid exposure to direct sunlight or frost.
In these conditions, this product should be used within 48 months from production.

PROCESSING INSTRUCTIONS

CRAYVALLAC® EXTRA is best added along with the initial charge of resin during the pigment dispersion and grind stage. Efficient activation will be achieved by allowing the temperature during this dispersion process to rise to 45 - 65°C (113 - 149°F), but more preferably from 55 - 65°C (131 - 149°F). This condition of dispersion and temperature control should be maintained for 20 - 30 minutes to ensure full activation. The activation process constitutes the conversion of the CRAYVALLAC® EXTRA particles to an interacting network of crystalline fibres. It is this network that gives rise to the final coating's shear thinning rheology. This shear thinning characteristic provides a very high viscosity under the low shear rates associated with sedimentation, and a low viscosity at the much higher application shear rates. The net result is excellent control of sedimentation combined with ease of application. Immediately following application, where low shear conditions again predominate, the coating's viscosity undergoes a time dependent recovery as the network re-establishes itself. This time dependence is known as thixotropy and enables the final coating to attain very good levelling and sag resistance.

HEALTH AND ENVIRONMENTAL DATA

For safe handling please refer to the Safety Data Sheet. For more information about health and environmental data, please contact us.

MARKET

Coatings & Inks
- Industrial Coating

KEY BENEFITS

FORMULATION
- **Easy handling** ●●●●○

STORAGE
- **Antisettling** ●●●●●
- **In-can appearence** ●●●●●
- **Syneresis resistance** ●●●●●
- **Viscosity stability** ●●●●●

APPLICATION
- **Edge-coverage** ●●●●●
- **Sag resistance** ●●●●●
- **Sprayability** ●●●●●

FILM PROPERTIES
- **Anticorrosion** ●●●●●
- **Gloss** ●●●●○
- **Levelling** ●●●●○

APEO free	**Yes**
Bacteria resistance	**Yes**
Heavy metal free	**Yes**
Solvent-free	**Yes**

THICKENING MECHANISM

Non Associative ●●●●●

VISCOSITY CONTRIBUTION

Low Shear contribution ●●●●●

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PROCESSING INSTRUCTIONS

CRAYVALLAC® ANTISETTLE CVP is best incorporated during the pigment dispersion stage using a high-speed disperser operating at no greater than 55°C (131°F). In order to obtain the maximum performance from CRAYVALLAC® ANTISETTLE CVP, the dispersion process should be maintained for a period of 20 – 40 minutes at a temperature of 30 – 55°C (86 - 131°F). The use of high-speed dispersers is ideal in that they generate both the necessary shear and temperature required for full dispersion and activation. The activation process constitutes the conversion of the CRAYVALLAC® ANTISETTLE CVP particles to an interacting network of fiber like particles. It is this network that gives rise to the final coating's shear thinning rheology. This shear-thinning characteristic provides a very high viscosity under the low shear rates associated with sedimentation, and a low viscosity at the much higher application shear rates. The net result is excellent control of sedimentation combined with ease of application. Immediately following application, where low shear conditions again predominate, the coating's viscosity undergoes a time dependent recovery as the network reestablishes itself. This time dependence is known as thixotropy and enables the final coating to attain very good levelling. Activation at temperatures less than 30°C (86°F), or greater than 55°C (131°F), or for too short a time will result in the formation of an inefficient interacting network. Too low a temperature and too short a time results in under-activation, while too high a temperature results dissolving of the fibrous network. Partial dissolving of CRAYVALLAC® ANTISETTLE CVP during coating manufacture manifests itself on cooling in the form of seeding. This is the result of dissolved material crystallizing out in an uncontrolled manner. As with all rheology modifiers based on hydrogenated castor oil, coatings prepared using CRAYVALLAC® ANTISETTLE CVP may sometimes develop an excessively high structure, or falsebody. This results when the hot coating is allowed to cool in the absence of stirring. This effect is minimized by cooling the coating with stirring to less than 40°C (104°F), or more preferably to less than 30°C (86°F), prior to discharge. Fortunately, this false-body phenomenon is a temporary effect and can be removed by the application of shear. Due to the potential for false-body to occur, care must be taken to ensure that process and quality control tests are not carried out on affected samples. This is best achieved by preconditioning all samples by mechanical stirring for several minutes prior to testing.

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VISCOSITY CONTRIBUTION

Low Shear contribution