

TECHNICAL DATA SHEET

CRAYVALLAC® EP

Micronised amide-modified hydrogenated castor oil rheology modifier

Castor derivative



99% bio-based product

TYPICAL CHARACTERISTICS

Nature	Castor derivatives
Appearance	Off-white micronized powder
Solid Content (%)	100
Active Content (%)	100
Specific gravity	1.02
Bulk density	0.4-0.6
Total Bio content (%)	99

DESCRIPTION

CRAYVALLAC® EP is a high performance micronised amide modified hydrogenated castor oil rheology modifier suitable for a wide range of solvent-based, high-solids and solvent-free applications. Compared to the most basic hydrogenated castor oil based rheology modifiers, CRAYVALLAC® EP is more tolerant to stronger solvents and diluents resulting in an excellent rheology modifier for current and future high to very high solid epoxy formulations. CRAYVALLAC® EP particles are converted upon activation into an interacting network of fibres. This network 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. Consequently, coatings formulated using CRAYVALLAC® EP exhibit an enhanced performance such as controlled flow behavior, ease of application and excellent sag resistance. Its smooth viscosity recovery helps to achieve high film thickness without compromising a good levelling.

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.

MARKETS

Coatings & Inks

- Industrial Coating

KEY BENEFITS

FORMULATION

- Easy handling



STORAGE

- Antisettling
- In-can appearance
- Syneresis resistance
- Viscosity stability



APPLICATION

- Edge-coverage
- Sprayability
- Brushability



FILM PROPERTIES

- Gloss
- Levelling
- Transparency



SAFER SOLUTIONS

- APEO Free*
- Heavy Metal Free*
- Solvent Free*

* Not intentionally added but not specifically measured (not part of product specification)

- Total Bio content (%) **99**

THICKENING MECHANISM

Non Associative



VISCOSITY CONTRIBUTION

Low Shear contribution

Mid Shear contribution



PROCESSING INSTRUCTIONS

The use of high-speed dispersers is ideal in that they generate both the necessary shear and temperature required for full dispersion and activation. Activation at too low a temperature, or too high a temperature, or for too short a time, will result in the formation of an inefficient interacting network. The use of too high a temperature will result in the network dissolving. Partial dissolving of CRAYVALLAC® EP during coating manufacture manifests itself on cooling in the form of seeding. This is when dissolved material crystallises out in an uncontrolled manner. As with all rheology modifiers based on hydrogenated castor oil, coatings prepared using CRAYVALLAC® EP may sometimes develop an excessively high structure, or false-body.

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.

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