

TECHNICAL DATA SHEET

CRAYVALLAC® SF

Micronised amide-modified hydrogenated castor oil rheology modifier

Castor derivative



94% bio-based product

TYPICAL CHARACTERISTICS

Nature	Castor derivatives
Appearance	Off-white micronized powder
Solid Content (%)	100
Active Content (%)	100
Specific gravity	1.02
Particle size distribution	DV. 2 min: 4 µm / DV. 8 max: 20 µm
Bulk density	0.4-0.6
Melting Point (°C)	135
Total Bio content (%)	94

DESCRIPTION

CRAYVALLAC® SF is a proprietary amide-modified hydrogenated castor oil rheology modifier with an enhanced tolerance to temperature and solvent strength suitable for a variety of different solvent-based systems e.g. aromatic hydrocarbons and aromatic hydrocarbon/alcohol blends. Compared to other hydrogenated castor oil based rheology modifiers, CRAYVALLAC® SF is more tolerant to strong solvents and high processing temperatures due to the presence of its unique performance enhancing amide. The activation process constitutes the conversion of the CRAYVALLAC® SF particles to an interacting network of fibre-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.

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

Electrical & Electronics

- Chemicals For Electronic

Coatings & Inks

- Architectural Coating
- Graphic Arts
- Industrial Coating

Adhesives & Sealants

- Assembly
- Other Adhesives
- Sealants

KEY BENEFITS

FORMULATION

- Easy handling



STORAGE

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



APPLICATION

- Edge-coverage
- Brushability
- Rollability



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 (%)

94

THICKENING MECHANISM

Non Associative



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. The activation process constitutes the conversion of the CRAYVALLAC® SF particles to an interacting network of fibre-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. 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® SF 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® SF 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.

VISCOSITY CONTRIBUTION

Low Shear contribution 
Mid Shear contribution 

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