

# CRAYVALLAC® SF

Micronised amide-modified hydrogenated castor oil rheology modifier  
**Castor derivative**

## TYPICAL CHARACTERISTICS

Nature	<b>Castor derivatives</b>
Appearance	<b>Off-white micronized powder</b>
Solid Content (%)	<b>100</b>
Active Content (%)	<b>100</b>
Specific gravity	<b>1.02</b>
Particle size distribution	<b>DV. 2 min: 4 µm / DV. 8 max: 20 µm</b>

## 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 24 months from production.

## 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.

## MARKET

### Electrical & Electronics

### 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**
- **Texturing**



- **APEO free** Yes
- **Bacteria resistance** Yes
- **Bio content (%)** 94
- **Heavy metal free** Yes
- **Solvent-free** Yes

## THICKENING MECHANISM

Non Associative



## VISCOSITY CONTRIBUTION

Low Shear contribution

