

Micronised hydrogenated castor oil rheology modifier
Castor derivative

Typical Characteristics

Nature	Castor derivatives
Appearance	Off-white micronized powder
Solid Content (%)	100
Active Content (%)	100
Specific gravity	1.01
Bulk density	0.4-0.6
Melting Point (°C)	85
Particle size distribution	DV.2 min: 2 µm / DV.8 max: 10 µm

Description

CRAYVALLAC® PF is a modified micronised hydrogenated castor oil rheology modifier specially designed to facilitate the incorporation in powder form for better activation and easier handling. The activation process is the conversion of the CRAYVALLAC® PF fine particles to an interacting network of fibers. It is this network that gives rise to the final system's shear thinning rheology. This shear-thinning behavior 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. CRAYVALLAC® PF is suitable for a multitude of applications.

Recommended addition level

0.2-3% under heat and shear

Standard Packaging

Other packaging may be available upon request

- 15 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 delivery.

Processing instructions

CRAYVALLAC® PF is best incorporated during the pigment dispersion stage using a high-speed disperser that generates both the necessary shear and temperature. The increased specific surface area available thanks to its finer particles contributes to obtain the maximum rheological performance. For instance in aliphatic solvent based coating, this maximum performance would be obtained for a 20 – 30 minutes long dispersion at a temperature of 30 – 55 °C (86 – 131 °F). The activation process is the conversion of the CRAYVALLAC® PF fine particles to an interacting network of fibers. It is this network that gives rise to the final system's shear thinning rheology. This shear-thinning behavior 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. The viscosity recovery is controlled so that the network reestablishes itself quickly but smoothly so as to both prevent sag and achieve a good levelling.

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.

Adhesives & Sealants

- Assembly
- Other Adhesives
- Sealants

Coatings & Inks

- Architectural Coating
- Industrial Coating

Key Benefits

Formulation

- Easy handling
- Ready to use

Storage

- Antisettling
- In-can appearance
- Syneresis resistance

Application

- Edge-coverage
- Brushability
- Rollability

Film Properties

- Gloss
- Levelling
- Transparency

APEO free:	Yes
Bacteria resistance:	Yes
Bio content (%):	100
Heavy metal free:	Yes
Solvent-free:	Yes

Thickening mechanism

Non Associative	●●●●●●
Self Association	○○○○○○
Associative	○○○○○○

Viscosity contribution

Low Shear contribution	●●●●●●
Mid Shear contribution	●●○○○○
High Shear contribution	○○○○○○