

CRAYVALLAC[®] SUPER

Micronised Amide Wax Rheology Modifier

Product Benefits

CRAYVALLAC[®] SUPER is a high performance, micronised amide wax rheology modifier suitable for a wide range of solvent-based, high-solids and solvent-free applications.

CRAYVALLAC[®] SUPER overcomes those difficulties which exist with hydrogenated castor oil based rheology modifiers e.g. seeding and false-body. Consequently, coatings formulated using CRAYVALLAC[®] SUPER exhibit an enhanced performance.

CRAYVALLAC[®] SUPER is best incorporated and activated using a high-speed disperser. It is usually 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 50 – 60°C (122 - 140°F) depending on the coating system characteristics. For the best results this condition of dispersion and temperature should be maintained for 15 – 30 minutes.

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[®] SUPER 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.

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.

The following table gives general temperature guidelines for the high-speed disperser activation of CRAYVALLAC[®] SUPER in various solvent systems:

Dearomatised mineral spirits	55 - 60°C (131 - 140°F)
Mineral spirits	50 - 55°C (122 - 131°F)
Aromatic hydrocarbons	40 - 50°C (104 - 122°F)
Aromatic hydrocarbon/ Alcohol blends	40 - 50°C (104 - 122°F)
Aromatic hydrocarbon/ Glycol ether blends	40 - 50°C (104 - 122°F)
Aromatic hydrocarbons/ Ester blends	40 - 50°C (104 - 122°F)
Solvent-Free	55 - 65°C (131 - 149°F)

For the stronger solvent systems such as xylene blended with alcohols, glycol ethers or esters it may be possible to use CRAYVALLAC[®] ULTRA in the place of CRAYVALLAC[®] SUPER. This would lead to greater confidence with regard to false-body and seeding issues.

With moisture cured methoxysilane based sealants, we strongly recommend that all additives be quickly dispersed and not allowed to remain in direct contact with the resin component. Prolonged contact may sometimes result in the formation of an insoluble fine skin which later appears as small particles in the final sealant.

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Performance Benefits

- 100% Active
- Imparts shear thinning rheology with thixotropic viscosity
- Excellent sag resistance
- Very good anti-settle properties
- Good storage stability

Recommendations for Use

Anti-Settling and Sag Resistance

0.5 - 1.5%

Sales Specifications

Particle size distribution:

(Malvern Mastersizer S laser particle size analyser) (CR005)

DV. 1 min.

1.8 µm

DV. 9 max.

15.0 µm

Other Properties

Density at 25°C (77°F), g/cm³ (CR006)

0.98

Bulk density, g/cm³ (CR016)

0.4-0.6

Appearance

Off white powder

Capillary Melting Point (CR003)

120-130°C
(248-266°F)

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Product Safety

Before handling the materials listed in this bulletin, read and understand the product MSDS (Material Safety Data Sheet) for additional information on personal protective equipment and for safety, health and environmental information. For environmental, safety and toxicological information, contact our Customer Service Department at 1-866-837-5532 to find an MSDS, or visit our web site: www.arkemacoatingresins.com

No chemical should be used as or in a food, drug, medical device, or cosmetic, or in a product or process in which it may contact a food, drug, medical device, or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

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Storage and Handling

Follow procedures typically recommended for polymer dispersions. Use corrosion-resistant storage tanks and piping. Air-operated diaphragm pumps are preferred. Avoid temperature extremes. Do not freeze; store between 5° - 30°C. Under these conditions the product may be stored for up to 4 years from production date.



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