

Rheological Additive

Alkali-Swellable Acrylic Associative Thickener in 100 % Active Powder Form for Latex paints and other Aqueous Systems

GENERAL INFORMATION

RHEOLATE[®] 101 rheological additive is an economical and versatile product in powder form for a variety of water-borne systems.

RHEOLATE[®] 101 rheological additive is chemically identical to the active component in RHEOLATE[®] 1 rheological additive. Its dry powder form is easier to store and is non-freezing. RHEOLATE[®] 101 is easily incorporated dry as a powder in the mill-base or as a pregel in water.

RHEOLATE[®] 101 rheological additive is an additive with a high thickening efficiency in the medium-shear-rate range and imparts excellent pigment suspension properties. Unlike other acrylic thickeners, RHEOLATE[®] 101 does not impair gloss.

PHYSICAL PROPERTIES

Composition	proprietary acrylic
Color / Form	white, finely divided powder
Density	1.2 g/cm ³
Non-volatile content	100 %

APPLICATIONS

- Gloss latex paints
- Industrial coatings
- Matt latex paints
- Semi-gloss latex paints
- Water-borne paints containing:
 - Acrylic latex
 - Styrene acrylic latex
 - Vinyl acrylic latex
 - Vinyl chloride latex
 - Water-reducible polyester
 - Water-reducible epoxy

Other water-borne systems:

- Adhesives
- Inks
- Sealants
- Mortars

KEY PROPERTIES

RHEOLATE[®] 101 rheological additive features and benefits are:

excellent rheology

- high mid-shear-rate viscosity
- provides good anti-settling properties
- reduced syneresis

excellent paint performance

- reduces spattering during roller application
- improves freeze/thaw stability

excellent film properties

- maintains gloss levels
- improves corrosion resistance

enzyme resistance

- resists viscosity loss
- re-thickens enzyme-spoiled paint

incorporation

- easily incorporated
- reduces paint preparation time
- avoids the handling of viscous liquids

compatibility

- compatible with clay-based thickeners
- cellulose and urethane associative thickeners
- 100 % solids powder

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INCORPORATION

RHEOLATE® 101 is added dry as a powder to the mill-base (non-acidic mill-bases only) or as a pre-dispersed gel in water and/or glycol. Acidic mill-bases may create an emulsion that will break under shear and severely flocculate. RHEOLATE® 101 can also be processed as a readily-made emulsion at up to 40 % by weight. The best methods of incorporation are:

Dry addition

- 1) water
- 2) RHEOLATE® 101 mix
- 3) ammonia to pH 9.0
- 4) dispersants
- 5) wetting agents
- 6) defoamer
- 7) pigments disperse
- 8) letdown

Gel addition

- 1) pregel
- 2) water (97 parts)
- 3) RHEOLATE® 101 (3 parts)
- 4) ammonia to pH 9.0
- 5) mix and store add at any convenient point in manufacturing process

Use with other thickeners

RHEOLATE® 101 can be combined with other thickeners:

Urethane Associative Thickeners

RHEOLATE® 101 can be used to overcome settling problems in systems thickened with a urethane associative thickener.

Cellulosic Thickeners

RHEOLATE® 101 can be used to modify cellulosic thickeners to improve low-shear-rate viscosity for better textured and stippled effects in coatings and to impart anti-sag and anti-slump properties in adhesives and sealants.

Clay-based Thickeners

RHEOLATE® 101 can be used with BENTONE® EW and other clay grades in latex and water-reducible coatings to provide superior thickening efficiency and application properties.

LEVELS OF USE

The typical levels of use for RHEOLATE® 101 are 0.1 to 0.35% (as delivered) by weight in paints or inks and up to 3 % in adhesives and sealants.

HEALTH AND SAFETY DATA

Before using this product please consult our Material Safety Data Sheet (MSDS) for information on safe handling and storage. MSDS can be found on the company website at www.elementis-specialties.com.

STORAGE RECOMMENDATIONS

Avoid exposure to temperatures above 40 °C (104 °F).

SHELF LIFE

RHEOLATE® 101 has a shelf life of 2 (two) years from date of manufacture.

QUALITY ASSURANCE

Since 1992 the company is a holder of the ISO 9001 / ISO 9002 certificates, which guarantees that all operations are conducted according to the stipulated standards.

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