

RHEOLATE® 1

Rheological Additive

Alkali-Swellable Acrylic Rheology Modifier Solution for Latex paints and other Aqueous Systems

GENERAL INFORMATION

RHEOLATE 1 rheological additive is an economical and versatile product in emulsion form for a variety of water-borne systems.

RHEOLATE 1 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 1** does not impair gloss

CHEMICAL & PHYSICAL PROPERTIES

Composition	proprietary acrylic emulsion in water
Color / Form	milky white emulsion
Density	1.07 g/cm ³
Viscosity	Brookfield (60 rpm) max. 30 mPa·s
Non-volatile content	30 %

These are typical properties not to be used for specification purposes.

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

KEY PROPERTIES

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

INCORPORATION

RHEOLATE 1 is added as the last component in the letdown stage in coatings. It can be incorporated directly into the paint system without dilution or pre-neutralisation. **RHEOLATE 1** should be thoroughly mixed into the product to ensure a homogeneous system, free from localised gellation, is obtained. The system must have a final pH of 8.5 - 10.0. To achieve the highest efficiency in gloss systems, a minimum pH of 9.0 is recommended.

Some systems contain materials of sufficient alkalinity to neutralise **RHEOLATE 1**. If not, additional base such as ammonia or 2-amino methyl propanol should be added.

In paints it may be necessary to increase mill-base solids to achieve optimum pigment dispersion where no thickener will be present in the mill-base.

Use with other thickeners

RHEOLATE 1 can be combined with other thickeners:

Urethane Associative Thickeners

RHEOLATE 1 can be used to overcome potential settling problems in systems thickened with a urethane associative thickener.

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RHEOLATE® 1

Cellulosic Thickeners

RHEOLATE 1 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 1 can be used with BENTONE EW and other clay grades in latex and water-reducible coatings to provide superior thickening efficiency and application properties.

LEVEL OF USE

The typical levels of use for **RHEOLATE 1** are, by weight, 0.3 to 1.0% (as delivered) in paints or inks and up to 9% in adhesives and sealants.

HEALTH AND SAFETY

Before using this product please consult our Safety Data Sheet (SDS) for information on safe handling and storage. The SDS can be found on the company website.

STORAGE RECOMMENDATIONS

RHEOLATE 1 should be kept above 4 °C (40 °F). In the event of accidental freezing, thaw gently, spread portion between glass slides and examine for granules. If found, Do Not Use.

SHELF LIFE

RHEOLATE 1 has a shelf life of 2 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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