

Associative Polyurethane-Based Thickener for Latex Paints

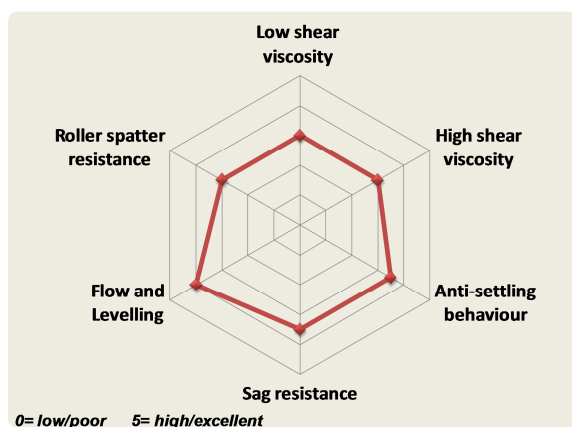
GENERAL INFORMATION

RHEOLATE 278 TF is a 25 % dispersion designed for use in paints containing small-particle-size latexes and high-volume-solids systems.

RHEOLATE 278 TF is an additive with superior thickening efficiency in the high-shear range (ICI viscosity) – beyond that of other thickeners and also contributes to mid-shear viscosity.

Latex paints with various ICI viscosities can be formulated by combining RHEOLATE 255 and RHEOLATE 278 TF or other rheological additives.

RHEOLATE 278 TF is APE free and tin-free.



PHYSICAL PROPERTIES

Appearance	Cloudy white liquid
Active solids	25 ± 0.5 %
Viscosity	1,000-6,000 cps, (Brookfield RVT spindle 4, 20 rpm, 25°C)
Density	1.03 g/cm ³
Solvent	water/butyldiglycol (80:20)

APPLICATIONS

- Gloss latex paints
- Satin-gloss latex paints
- Latex paints for interior and exterior applications, based on pure acrylic or copolymer binders

KEY PROPERTIES

RHEOLATE 278 TF rheological additive

excellent rheology

- gives superior high-shear viscosity
- enhances film build
- provides excellent brush drag

excellent paint performance

- imparts superior flow and leveling
- reduces spattering during roller application
- good color acceptance
- enzyme resistant
- develops pH-independent rheology
- gives alkyd-like appearance in water-borne gloss paints
- easily incorporated

compatibility

- compatible with BENTONE[®] EW, BENTONE LT and other rheological additives
- allows broad formulating flexibility

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INCORPORATION

RHEOLATE 278 TF can be used as supplied or – in special cases – diluted. Addition can take place at any time during the paint manufacturing process. Addition before letdown of the mill-base is strongly recommended.

The combined use of RHEOLATE 255 and RHEOLATE 278 TF allows the high-shear viscosity (drag-resistance) and low/medium-shear viscosity (flow and levelling) of a paint to be precisely adjusted. This is achieved by the following method, using the two additives in varying proportions.

Two paints are prepared independently to the desired medium-shear viscosity using, respectively, RHEOLATE 255 and RHEOLATE 278 TF. The two paints are then mixed in varying proportions until the resultant blend has the required high-shear (ICI) viscosity. The amounts of RHEOLATE 255 and RHEOLATE 278 TF needed to achieve a given ICI viscosity can thus be accurately determined.

RHEOLATE additives can be combined with traditional additives such as BENTONE® LT, BENTONE® EW, cellulosic or acrylic thickeners.

The thickening efficiency of RHEOLATE 278 TF may be influenced by solvents, binders or surfactants. The rheological properties of these associative thickeners are developed by interaction with the other raw materials in a given system.

It is therefore important to assess the effectiveness of RHEOLATE 278 TF in the complete paint system.

LEVELS OF USE

The typical levels of use for RHEOLATE 278 TF are 0.4 to 2.0% by weight of the paint. To achieve optimum properties, the system's surfactant blend may need modification.

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

Store in a cool, dry location.

Store above 4 °C (40 °F)

In the event of accidental freezing, thaw gently, spread a portion between clean glass slides and examine for granules. If found, do not use.

SHELF LIFE

RHEOLATE 278 TF 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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