

Rheological Additive For Latex paints and other Water-Borne Systems

GENERAL INFORMATION

RHEOLATE® 450 rheological additive is a unique hydrophobically modified alkali swellable thickener that demonstrates both ionic and associative thickening mechanisms with an excellent balance of the respective properties.

RHEOLATE® 450 will provide both mid and high shear rate viscosity with balanced performance for superior package and application properties. It is enzyme resistant and can be used to re-thicken biologically spoiled coatings.

PHYSICAL PROPERTIES

Composition	Proprietary HASE (hydrophobically modified alkali swellable emulsion)
Color / Form	Milky white liquid
Density	8.97 / 1.07 lbs/gal (g/cc)
pH	< 5.0
Viscosity, Brookfield LVT #1 spindle at 60 RPM	Max 100 mPa•s
Non-Volatile Content	30% (weight)
Volatile	Water

APPLICATIONS

Water-borne Architectural Coatings

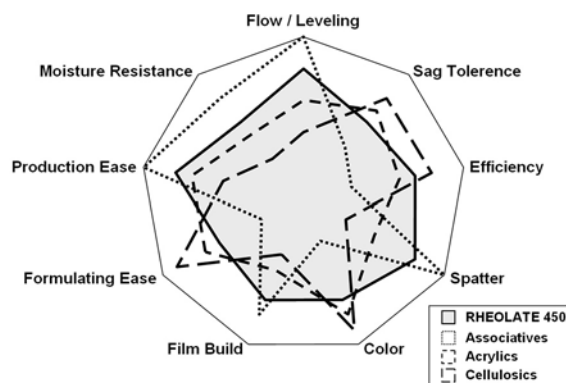
- High PVC architectural systems
- High gloss and semi-gloss latex paints
- Low odor and low VOC coatings
- Matte latex paints
- Premium Interior/exterior deco coatings
- Contractor or trade paint systems
- Water reducible and latex systems

Industrial Coatings

- Coil and roller applied coatings
- Vacuum and curtain coatings
- Industrial maintenance coatings

KEY PROPERTIES

- Efficient mid and high shear build
- Exceptional package appearance
- Reduced syneresis
- Alkyd-like flow and leveling
- Improved moisture resistance over other acrylic and cellulosic thickeners
- Excellent brush drag
- Improved hiding on roll-out
- Superior spatter resistance and flow and leveling versus acrylic and cellulosic thickeners
- Excellent color acceptance versus urethane associate thickeners



NOTE: The information herein is currently believed to be accurate. We do not guarantee its accuracy. Purchasers shall not rely on statements herein when purchasing any products. Purchasers should make their own investigations to determine if such products are suitable for a particular use. The products discussed are sold without warranty, express or implied, including a warranty of merchantability and fitness for use. Purchasers will be subject to a separate agreement which will not incorporate this document.

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INCORPORATION

- Proper Addition Techniques
- In most cases **RHEOLATE® 450** can be added to the system without dilution or pre-neutralization. It is most commonly added to the letdown, but a portion can also be incorporated into the millbase if a thixotropic grind is desired. Under very low shear mixing conditions dilution with water and/or glycol is recommended. **RHEOLATE® 450** can also be post-added to adjust viscosity after quality control checks, or to correct product spoiled by biological degradation.
- Coalescing Agents
In rare occasions the use of small particle size latex emulsions, together with a coalescent agent of low water miscibility may lead to excessive thickening when using **RHEOLATE® 450**. In this case we recommend using a more hydrophilic coalescing agent.
- Proper pH Adjustment
- **RHEOLATE® 450** is an alkali swellable thickener and should be used in systems with a pH of at least 7.5 for complete activation. In vinyl acrylic systems where pH has a tendency to drift downward, the use of calcium carbonate or wollastonite extenders may help maintain pH on aging. **RHEOLATE® 450** is effective over a wider pH range than most HASE thickeners and will reduce the need for higher amine levels or alkali extenders.
- Viscosity Equilibration
- As in the case with all associative thickeners **RHEOLATE® 450** requires time to activate fully after addition. The equilibration time will vary depending on formulation, but in most cases will be reached after 16 hours.

LEVELS OF USE

The typical level of use in paints or inks for **RHEOLATE® 450** is 0.3% to 1.0% (as delivered) by weight. Levels up to 9% can be used 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.

STORAGE RECOMMENDATIONS

RHEOLATE® 450 should be kept above 5 °C (40 °F) and BELOW 40 °C (104 °F). In the event of accidental freezing, thaw gently, spread between glass slides and examine for granules. If found, do not use.

SHELF LIFE

RHEOLATE® 450 has a shelf life of 1½ (one and one-half) 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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