

## Rheological Additive for Aliphatic and Aromatic Systems

### GENERAL INFORMATION

THIXATROL ST rheological additive is a modified derivative of castor oil for use in aliphatic and aromatic solvent-borne coatings. It also imparts flow and levelling control to powder coatings.

### PHYSICAL PROPERTIES

Composition	organically modified castor oil derivative	
Color / Form	White / finely divided powder	
Density	1.02 g/cm <sup>3</sup>	
Incorporation temperature	Aliphatic systems:	63-74 °C (145-165 °F)
	Aromatic systems:	38-54 °C (100-130 °F)

### APPLICATIONS

- Air-drying industrial finishes
- Anti-fouling paints
- Asphaltic compositions
- Caulks, mastics, adhesives
- Chlorinated rubber coatings
- Decorative coatings
- Epoxies
- Hammer finishes
- High-build finishes
- Polyurethanes  
(except systems containing free isocyanates)
- Powder coatings
- Sealants
- Traffic paints
- Varnishes

### KEY PROPERTIES

#### THIXATROL ST rheological additive

- increases viscosity and provides thixotropy
- contributes to pigment suspension
- provides sag control without sacrifice of flow and leveling
- controls penetration into porous substrates
- does not normally react with system components
- has no influence on water-resistance of organic systems
- will not adversely affect paint durability
- is non-yellowing (in the final formulation)
- imparts excellent package stability and reproducibility
- improves flow and levelling of powder coatings

### INCORPORATION

Shear, controlled temperature and time are required for proper activation of THIXATROL ST.

High-shear disc impellers, pearl, sand, ball or triple-roll mills should be used for THIXATROL ST.

THIXATROL ST is incorporated into powder coatings systems at the pre-mix stage and dispersion is completed by the high-shear forces produced within the extruder.

In coatings, it is preferable to incorporate the rheological additive at the beginning of the dispersion. After pre-mixing the rheological additive in a solvent/binder blend for about 5 minutes, other ingredients can be added and the system processed in the normal way.

To obtain the full thixotropic flow properties of THIXATROL ST, a processing temperature range of 38-54 °C (100-130 °F) in aromatic formulations is required during the dispersion stage. In aliphatic solvent systems a temperature range of 63-74 °C (145-165 °F) should be used.

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## LEVELS OF USE

The optimum use levels of THIXATROL ST will depend on the system being formulated. Typical use levels of THIXATROL ST may vary from 0.2-0.8 % by weight. In certain cases, for example high-build systems, higher levels may be required.

## HANDLING AND SAFETY

More detailed information on handling and safety for each product is included in the relevant material safety data sheet, available for each product.

## STORAGE RECOMMENDATIONS

THIXATROL ST should be kept in a cool, dry location. Avoid stacking pallets in hot climates.

## PACKAGING

THIXATROL ST rheological additive is available in multi-ply paper bags. Please contact your local Elementis Specialties representative for the packaging weights available in your region.

## SHELF LIFE

THIXATROL ST has a shelf life of 4 (four) years from date of manufacture.

## PRODUCT NUMBER

10848

## 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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