

## Rheological Additive

### For Organic Systems Based on Non-Polar Solvents and for Powder Coatings

#### GENERAL INFORMATION

THIXCIN® R is a non-hygroscopic organic derivative of castor oil. It imparts higher thickening efficiency than THIXCIN® E.

#### PHYSICAL PROPERTIES

Composition	organic derivative of castor oil
Color / Form	fine white powder
Density at 25°C	1.02 g / cm <sup>3</sup>
Ash content	0 %
Melting point	85 °C (185 °F)
Incorporation temperature (in liquid products)	43 °C - 54 °C (110 °F - 130 °F)

#### APPLICATIONS

- Alkyd paints
- Hammer finish paints
- Solvent-free epoxy paints
- Radiator paints
- Textured paints
- Wood stains
- Mastics, caulks and sealants
- Plastisols, organosols
- Underbody sealants
- High-build paints
- Gelcoats and surfacers based on unsaturated polyesters
- Powder coatings
- Cosmetics
- Pharmaceutical

#### KEY PROPERTIES

THIXCIN® R rheological additive

- adds thixotropic body and controls viscosity
- reduces settling of pigments and extenders
- controls sag without impairing flow
- produces optimum levelling in paints
- controls liquid penetration into porous surfaces
- has no adverse effect on durability and light-fastness
- is non-yellowing
- has excellent package stability
- improves degassing of powder coatings
- improves flow and levelling of powder coatings
- is an excellent binder for tablets, granules and cosmetics pressed powder

#### INCORPORATION

THIXCIN® R rheological additive should be added at the beginning of the dispersion process, preferably by pre-mixing in the solvent/binder or vehicle for about 5 minutes before other components are added. When incorporating THIXCIN® R, both a lower and an upper processing temperature must be observed. A minimum temperature of about 43 °C (110 °F) is necessary to build the thixotropic structure properly. If a 55 °C (130 °F) temperature is exceeded, soft gel-like particles may appear on return to room temperature. The presence of aromatic solvents lowers this upper temperature limit. Should this limit be exceeded, the formation of particles can be prevented by mild continuous stirring during cooling to 45 °C (113 °F) or below.

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Incorporation into dry systems is by normal powder blending processes. Full dispersion of THIXCIN® R in powder coatings is achieved at the extruder stage of production.

Within the prescribed temperature range, THIXCIN® R should be subjected to as much shear as possible during processing. The more intense the dispersing or grinding action, the more pronounced and immediate is the effect.

## LEVELS OF USE

The optimum use level of THIXCIN® R will vary depending on the type of system involved and on the desired degree of thickening. A typical starting use level is 0.2 % to 0.8 % by weight of the total formulation.

In powder coatings typical use levels are 0.2 % to 2.0 %. Pressed powders, tablets and granules need a level of 0.5 % to 2.0 %.

## HANDLING AND SAFETY

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-asia.com](http://www.elementis-specialties-asia.com).

## STORAGE RECOMMENDATIONS

THIXCIN® R should be kept in a cool, dry location. Avoid stacking pallets in hot climates.

## SHELF LIFE

THIXCIN® R has a shelf life of 4 (four) 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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