

Rheological Additive for Organic Systems Based on Non-Polar Solvents and for Powder Coatings

GENERAL INFORMATION

THIXCIN[®] E is a non-hygroscopic organic derivative of castor oil. It is chemically the same as THIXCIN[®] R, but less dusty. In powder coatings it offers a more efficient extruder throughput compared with THIXCIN[®] R.

PHYSICAL PROPERTIES

| | |
|---|----------------------------------|
| Composition | organic derivative of castor oil |
| Color / Form | fine white powder |
| Density at 25°C | 1.02 g / cm ³ |
| Ash content | 0 % |
| Melting point | 85 °C (185°F) |
| Incorporation temperature (in liquid products) | 43 - 55 °C (110 - 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[®] E 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[®] E 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[®] E, 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 temperature of 55°C (130°F) 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.

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.

© Copyright 2006, Elementis Specialties, Inc. All rights reserved. Copying and/or downloading of this document or information therein for republication is not allowed unless prior written agreement is obtained from Elementis Specialties, Inc.

® Trademark of Elementis Specialties, Inc.

www.elementis-specialties-asia.com

B03 Mar-15

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

Within the prescribed temperature range, THIXCIN® E 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

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

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

MSDS can be found on the company website at www.elementis-specialties-asia.com.

STORAGE RECOMMENDATIONS

THIXCIN® E should be kept in a cool, dry location.

Avoid stacking pallets in hot climates.

PACKAGING

THIXCIN® E rheological additive is available multi-ply paper bags and fiber drums. Please contact your local Elementis Specialties representative for the packaging weights available in your region.

SHELF LIFE

THIXCIN® E 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.

Elementis Specialties

Asia Head Office China

Deuchem (Shanghai) Chemical Co., Ltd.
99, Liyang Road,
Songjiang Industrial Zone,
Shanghai, China 201613
Tel.: +86 21 57740348
Fax.: +86 21 57743563

Taiwan

Deuchem Co., Ltd.
92, Kuang-Fu North Road,
Hsinchu Industrial Park,
Hukou, Hsinchu, Taiwan
Tel.: +886 3 5984035
Fax.: +886 3 5983301

Malaysia

Elementis S.E.A. (Malaysia) Sdn. Bhd.
(1095769-X)
62-1, Jalan Tasik Utama 5,
Medan Niaga Tasik Damai,
Sungai Besi, 57000 Kuala Lumpur,
Wilayah Persekutuan, Malaysia
Tel.: +603-9054 6690
Fax.: +603-9054 6698

India

Elementis Specialties (India) Pvt. Ltd.
Unit B, Ground Floor,
Jaswanti Landmark,
Mehra Industrial Estate,
L.B.S Marg, Vikhroli (West),
Mumbai 400 079, India
Tel.: + 91 22 67421251
Fax.: + 91 22 67421252