

RHEOBYK-425 TF

Organotin-free, liquid rheology additive for aqueous systems to set the in-can viscosity and to improve the anti-sagging and anti-settling properties.

Product data

Composition

Solution of a urea-modified polyurethane

Tin-free
APEO-free
VOC-free (< 1500 ppm)

Typical properties

The values indicated in this data sheet describe typical properties and do not constitute specification limits.

Density (20 °C):	1.04 g/cm ³
Active substance:	50 %
Solvent:	polypropylene glycol
Flash point:	> 100 °C
Refractive index (20 °C):	1.46
Delivery form:	liquid

Storage and transportation

Product shelf life in unopened original packaging: 24 months

To be stored and transported between 10 °C and 40 °C. Separation may occur. This has no influence on the effectiveness of the additive. Stir before use.

Special note

RHEOBYK-425 TF is the organotin-free version of RHEOBYK-425.

Applications

Coatings industry

Special features and benefits

The rheological effectiveness of RHEOBYK-425 TF is primarily based on the associative interaction with the dispersion particles of the aqueous binder and enables a highly pronounced pseudoplastic flow behavior. The urea modification of the additive also causes an increase in the rheological effect via hydrogen bonds. RHEOBYK-425 TF is VOC- and APEO-free, does not impair gloss, and its rheological effect is not dependent on the pH value.

Recommended use

RHEOBYK-425 TF is suitable for all kinds of aqueous coatings in order to improve the anti-sagging properties and set the required in-can viscosity of the formulation. The resulting increase in viscosity simultaneously improves the storage stability with reduced settling. When grinding pigment pastes, the additive can also increase the millbase viscosity and therefore improve the dispersion conditions.

Wood and furniture coatings	<input checked="" type="checkbox"/>
Architectural coatings	<input checked="" type="checkbox"/>
General industrial coatings	<input type="checkbox"/>

especially recommended recommended

Recommended levels

0.1-2 % additive (as supplied) based on the total formulation.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

RHEOBYK-425 TF can be added to the formulation at any time during the production process; we recommend that it is post-added using a moderate shear force. If RHEOBYK-425 TF is to be used in pigment pastes to improve the dispersion conditions by increasing the millbase viscosity, it must be added directly to the millbase.

Due to its considerable rheological effectiveness, the additive may cause an immediate, very strong increase in viscosity and therefore make further processing more difficult. In this case, we recommend that it is prediluted. It can be diluted with just water (10 parts RHEOBYK-425 TF + 90 parts water) or also with a water/co-solvent mix using a standard coalescent (e.g. 20 parts RHEOBYK-425 TF + 70 parts water + 10 parts coalescent). RHEOBYK-425 TF is highly viscous at low temperatures; predilution can also be helpful under these conditions. The storage stability of the diluted solutions should be tested on a case-by-case basis.



Your local
contact

BYK-Chemie GmbH

Abelstraße 45
46483 Wesel
Germany
Tel +49 281 670-0
info@byk.com
www.byk.com



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