RHEOBYK-7411 ES

Liquid rheology additive for low-polarity solvent-borne and solvent-free coating systems and cleaning products to generate highly thixotropic flow behavior and to improve the anti-sagging and anti-settling properties.

Product Data

Composition
Solution of a modified urea

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

Active substance:	25 %
Density (20 °C):	1.07 g/ml
Solvents:	Amide ester
Flash point:	146 °C

Storage and Transportation
Moisture sensitive. Store dry. Minor cloudiness of the material that occurs during storage has no influence on the rheological effectivity. The specified storage stability upon dispatch applies when the product is handled correctly and stored in unopened original containers.

Applications

Coatings Industry

Special Features and Benefits
After being stirred into the coating system, the additive generates a three-dimensional network structure. The resulting thixotropic flow behavior is highly suited for preventing sedimentation and increasing the anti-sagging properties without impairing leveling. As a result of associated interaction of RHEOBYK-7411 ES with the used binder, the rheological effect is also significantly dependent upon the type and quantity of the binder.

Recommended Use
The additive is recommended for low-polarity systems. RHEOBYK-7410 ET is better suited for medium-polarity systems. We recommend RHEOBYK-7420 ES for high-polarity and aqueous systems.

Recommended Levels
0.2-1 % additive (as supplied) based on the total formulation to prevent settling.
0.5-2 % additive (as supplied) based on the total formulation to prevent sagging.

The above recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

Incorporation and Processing Instructions
The additive should be added to the coating whilst stirring using moderate shear forces to ensure a homogeneous and quick distribution. It is not necessary to specifically control the temperature. The additive can be added to the millbase and is also suitable for adjusting the viscosity afterwards by incorporating it as a post-additive.

Special Note
If used with driers (siccatives), discoloration may occur due to the formation of metal complexes. The rheological effectiveness should then be tested.

Detergents, Cleaning and Care Products

Special Features and Benefits
After being incorporated into the system, the additive generates a three-dimensional network structure. The resulting thixotropic flow behavior is ideal for preventing particles (e.g. encapsulated fragrances) from settling, without negatively impacting the residual emptying of the container. Cleaning products with RHEOBYK-7411 ES are easy to use and can be applied by spraying. The use of the additive improves adhesion to vertical surfaces, which improves the cleaning action as a result of the longer exposure time. The additive is liquid and therefore easy to handle. The transparency of the detergents and cleaning products is preserved.

Recommended Use
RHEOBYK-7411 ES is used as a rheology additive to improve the anti-sagging and anti-settling properties in detergents and cleaning products based on low-polarity solvents. It can also be used in liquid, non-ionic surfactants (alcohol ethoxylates and propoxylates of low polarity).

Industrial cleaners (non-polar solvents)	■
Non-aqueous liquid detergents	■

■ especially recommended □ recommended

Recommended Levels
1.0-3.0 % additive (as supplied) based upon the total formulation, depending on the properties of the formulation to be achieved.

The above recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

Incorporation and Processing Instructions
The additive should be added whilst stirring using moderate shear forces to ensure a rapid, homogeneous distribution. It is not necessary to specifically control the temperature. The additive is also suitable for subsequently adjusting the viscosity by incorporating it as a post-additive. The additive is recommended for low-polarity systems.

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Additive Guide

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