RHEOBYK-440

Liquid rheology additive based on a polyamide to improve the anti-sagging and anti-settling properties as well as the effect pigment orientation in aqueous coating systems. Extremely shear-thinning.

Not available in North America.

Product data

Composition
Solution of polyamide

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

Density (20 °C):	0.97 g/cm³
Active substance:	25 %
Solvent:	cyclic amide
Flash point:	117 °C
Refractive index (20 °C):	1.475
Delivery form:	liquid

Storage and transportation
Product shelf life in unopened original packaging: 18 months
To be stored and transported at a temperature below 50 °C. Store in sealed containers in a dry and well-ventilated place.

Special note
The formation of gel that occurs during storage has no influence on the rheological effectiveness. If gel formation is observed, the product should be stirred before use and, if necessary, heated to up to 50 °C.

Applications

Coatings industry

Special features and benefits
he additive is liquid and therefore easy to handle. With the help of pigments and fillers, it forms a three-dimensional network structure, and increases the viscosity above all in the low shear range. The strong shear-thinning properties simultaneously ensure an optimum handling and processability of the coating. The rapid structure recovery after shearing gives outstanding anti-sagging and anti-settling properties as well as an excellent effect pigment orientation.

RHEOBYK-440 is especially suitable for use in aqueous protective coatings based on epoxy dispersions, as well as for aqueous industrial coatings and automotive base coats.

Recommended use

Marine and protective coatings	■
Automotive OEM coatings	■
Automotive refinish coatings	■
General industrial coatings	■
Architectural coatings	■
Wood and furniture coatings	■
Floor coatings	□

■ Especially recommended □ Recommended

Recommended levels

0.2-2 % additive (as supplied) based on the total formulation, depending on the application area also 3-5 % 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-440 is preferably suitable for adding to the letdwon stage, or as a post-additive to retroactively adjust the rheological properties. The efficiency of the additive can be reduced when used in the millbase. Addition under stirring ensures optimum distribution and the best possible effectiveness and reproducibility in applications. To achieve the full effect of the additive, an incorporation time of at least 5 minutes with medium shear forces is recommended. It is not necessary to adjust the pH value or control the temperature during incorporation.

Special note

The assessment of the rheology should take place no sooner than 4 hours after incorporation, as the rheological effect does not develop immediately.

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