BYK-411

Liquid rheology additive for low-polarity solvent-borne and solvent-free coating systems to improve anti-sagging and anti-settling properties. The additive causes highly thixotropic flow behavior; post-addition is possible.

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 (68 °F): 8.76 lbs/US gal
Solvents: N-Methylpyrrolidon
Flash point: 196 °F

Food Contact Legal Status
For the current food contact legal status, please contact our product safety department or visit www.byk.com for further information.

Storage and Transportation
Moisture sensitive. Store dry. Slight turbidity of the material that occurs during storage has no influence on the rheological effectiveness.

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 associative interaction of BYK-411 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. BYK-410 is better suited for medium-polarity systems. We recommend BYK-420 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 rapid, homogeneous 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.

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