

BYK-405

Liquid rheology additive for solvent-borne coating systems to increase the rheological effectiveness of pyrogenic fumed silica. Incorporation of the fumed silica is made easier, separation is prevented, and the thixotropic behavior increased or stabilized.

Product Data

Composition

Solution of polyhydroxycarboxylic acid amides

Typical Properties

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

Density (68 °F):	7.72 lbs/US gal
Non-volatile matter (20 min., 302 °F):	52 %
Solvents:	Xylol/Alkylbenzole/Isobutanol 5/4/1
Flash point:	84 °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

Separation or turbidity may occur. Warm to 20-30 °C (68-86 °F) and mix well. Product efficiency is not affected.

Applications

Coatings Industry

Special Features and Benefits

BYK-405 acts as a wetting and dispersing additive and makes it easy to incorporate pyrogenic fumed silica in the coating. It increases or stabilizes the thixotropic behavior. The improved rheological effect is particularly noticeable in clear coatings as the incorporation of the fumed silica does not usually occur at the same high shear forces as for pigmented systems.

The additive reduces or prevents the separation of pyrogenic fumed silica in the coating.

BYK-405 is specifically designed for solvent-borne coating systems based on polyester, acrylate, and alkyd binders that contain pyrogenic fumed silica. The fumed silica should be at least partially hydrophilic.

Thixotropic binders gain increased thixotropy when additionally dosed with BYK-405.

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Recommended Levels

20-40 % additive (as supplied) based upon the pyrogenic fumed silica.

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

Incorporation and Processing Instructions

BYK-405 can be added to the formulation before or after dispersion of the pyrogenic fumed silicas whilst stirring.



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