

BYK-370

Silicone-containing surface additive, polyester-modified, for solvent-borne coating systems and UP gel coats. OH-functional. Strongly reduces surface tension.

Product Data

Composition

Solution of a polyester-modified, hydroxy-functional polydimethylsiloxane.

Typical Properties

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

Density (68 °F):	7.68 lbs/US gal
Non-volatile matter (10 min., 302 °F):	25 %
Solvents:	Xylene/Alkylbenzenes/Cyclohexanone/Monophenyl glycol
Flash point:	77 °F
OH value (solids):	35 mg KOH/g

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

Mix well before use. Separation or turbidity may occur at temperatures below 5 °C (41 °F). Warm to 20 °C (68 °F) and mix well.

Applications

Coatings Industry

Special Features and Benefits

Due to its high surface activity, the additive accumulates on the surface of the coating. Its reactivity allows it to be incorporated into the polymer network and therefore to be anchored in the coating surface. BYK-370 improves surface slip, solvent and weather resistance, anti-blocking and reduces susceptibility to dirt. If the additive is fixed in the coating surface via its reactive groups, these properties remain present longer than with conventional, non-reactive silicones. The additive also reduces surface tension, which improves substrate wetting. It improves leveling and prevents the formation of Bénard cells.

Recommended Use

BYK-370 reacts with the resin via primary OH-groups and is primarily used in solvent-borne two-pack polyurethane systems. It may also react with the following binders: Alkyd/melamine, polyester/melamine, acrylate/melamine, self-crosslinking acrylates, epoxides. It is preferably used in wood and furniture coatings, leather coatings as well as can coatings.

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Recommended Levels

0.1-1 % additive (as supplied based) upon total formulation.

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 can be incorporated during any stage of the production process, including post-addition.

Special Note

When using the coatings in exterior areas, weathering removes the additive along with the top resin layer from the coating early on. Tests must be performed to determine whether these conditions allow the additive to be effective for a sufficiently long period of time. If the additive is used in coating systems which incorporate it via its functional groups, it is important that the coating is carefully and evenly sanded before recoating or retouching in order to facilitate sufficient adhesion.

Ambient Curing Systems

Special Features and Benefits

The additive improves leveling in unsaturated polyester-based gel coats. It also prevents the formation of craters and fish eyes and facilitates the acceptance of spray mist or dust.

Recommended Levels

0.1-0.3 % additive (as supplied) based upon total formulation.

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 can be incorporated during any stage of the production process, including post-addition. It has proven successful to add the additive at the end of the process.

Special Note

Unlike silicone oils, this additive is very user-friendly. However, before use, one should determine in test series whether foam is stabilized in certain systems and check the recoatability and crater development.



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