BYK-307

Silicone-containing surface additive for solvent-free and solvent-borne coating systems, printing inks and adhesive systems, with strong reduction of surface tension. Very good substrate wetting, prevents cratering, and increases surface slip.

Product data

Composition
Polyether-modified polydimethylsiloxane

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

Density (20 °C):	1.03 g/cm³
Active substance:	100 %
Delivery form:	liquid

Storage and transportation
Product shelf life in unopened original packaging: 60 months

Special note
BYK-307 is also available as low-cycle version. BYK-3762 is a low-cycle version with a cyclic siloxane content D4 / D5 / D6 in each case less than 0.1 %, therefore the SVHC label is not required in the safety data sheet.

Applications

Printing inks

Special features and benefits
The additive provides a strong reduction of surface tension of the system. Thus, it especially improves substrate wetting and prevents cratering. Furthermore, it increases surface slip and gloss. BYK-307 is a highly effective silicone additive for wetting critical substrates, and due to its being solvent-free, it is preferred in systems in which a solvent-free additive is requested, or where intermediate products require specific solvents.

Recommended use
Recommended for all printing inks and overprint varnishes.

Recommended levels
0.1-1.0 % 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
The additive can be incorporated during any stage of the production process, including post-addition. Dilution prior to incorporation can be helpful for easier dosing.

Special note
Unlike so-called silicone oils, this additive is very user-friendly. Nevertheless, it should be determined in a series of tests whether foam is stabilized in certain systems. Similarly, the recoatability and cratering should be checked.

Coatings industry

Special features and benefits
The additive provides a strong reduction of surface tension of the coating system, and is a highly effective silicone additive for wetting critical substrates. It prevents cratering, and increases gloss and surface slip. Because it is supplied in a solvent-free form, it is especially useful in systems in which a solvent-free additive is requested, or where intermediate products require specific solvents.

In industrial wood applications, it demonstrates excellent results in curtain stability (used in casting machines).

Recommended use
The additive is especially recommended for all solvent-borne coatings, and can also be used in aqueous systems.

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

■ Especially recommended ☐ Recommended

Recommended levels
0.01-0.3 % 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
The additive can be incorporated during any stage of the production process, including post-addition. Dilution prior to incorporation can be helpful for easier dosing.

Special note
Unlike so-called silicone oils, this additive is very user-friendly. Nevertheless, it should be determined in a series of tests whether foam is stabilized in certain systems. Similarly, the recoatability and cratering should be checked.

Adhesives and sealants

Special features and benefits
BYK-307 is a highly effective silicone additive, and provides a strong reduction of surface tension. In this way, it improves the wetting of critical substrates.

Recommended use
It is recommended for improving the substrate wetting in adhesive systems based on polyurethanes, epoxides, and acrylates.

Recommended levels

0.01-0.15 % 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

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

Your local contact

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