

BYK-3459

VOC-free silicone surfactant for aqueous systems with a significant reduction in surface tension and therefore good substrate wetting without increasing surface slip. Universally applicable and suitable for co-solvent-free systems.

Product data

Composition

Polyether-modified siloxane

VOC-free (< 1500 ppm)

Typical properties

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

Density (20 °C): 1.04 g/cm³

Active substance: 100 %

Storage and transportation

Product shelf life in unopened original packaging: 36 months

To be stored and transported at a temperature below 50 °C.

Special note

BYK-3459 is the VOC-free (< 1500 ppm) version of BYK-349.

Applications

Coatings industry

Special features and benefits

The additive provides a significant decrease in the surface tension in aqueous coatings and therefore particularly improves substrate wetting and leveling. It only marginally, if at all, stabilizes foam and the recoatability is not impaired. The additive does not increase the surface slip. If a greater surface slip is required, we recommend combining it with a polysiloxane such as BYK-333.

Recommended use

Automotive OEM coatings	<input checked="" type="checkbox"/>
Automotive refinish coatings	<input checked="" type="checkbox"/>
General industrial coatings	<input checked="" type="checkbox"/>
Marine and protective coatings	<input checked="" type="checkbox"/>
Floor coatings	<input checked="" type="checkbox"/>
Architectural coatings	<input checked="" type="checkbox"/>
Wood and furniture coatings	<input type="checkbox"/>

especially recommended recommended

Recommended levels

0.05–0.5 % 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

It is preferable to add the additive to the finished coating. However, it can be used at any stage during the coating manufacture.

Special note

BYK-3459 is a silicone-based surface additive. When used in multi-layer systems, it is recommended to check the intercoat adhesion and the recoatability.

Leather finishes and coated fabrics**Special features and benefits**

The additive provides a significant decrease in surface tension in aqueous coatings and therefore particularly improves substrate wetting and leveling. It only marginally, if at all, stabilizes foam and the recoatability is not impaired. The additive does not increase the surface slip. If a greater surface slip is required, we recommend combining it with a polysiloxane such as BYK-333.

Recommended use

Leather finishes	<input checked="" type="checkbox"/>
Coated fabrics	<input checked="" type="checkbox"/>

especially recommended recommended

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Incorporation and processing instructions

It is preferable to add the additive to the finished coating. However, it can be used at any stage during the coating manufacture.

Special note

BYK-3459 is a silicone-based surface additive. When used in multi-layer systems, it is recommended to check the intercoat adhesion and the recoatability.

Printing inks**Special features and benefits**

The additive provides a significant reduction in the surface tension of the systems. It therefore particularly improves the substrate wetting and prevents cratering. If a greater surface slip is required, we recommend combining it with a polysiloxane such as BYK-333.

Recommended use

BYK-3459 is recommended for aqueous printing inks and overprint varnishes.

Recommended levels

0.1–0.5 % 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

It is preferable to add the additive to the finished coating. However, it can be used at any stage during the coating manufacture.

Special note

BYK-3459 is a silicone-based surface additive. It is recommended to check the intercoat adhesion and the recoatability in a series of tests before use.

Adhesives and sealants**Special features and benefits**

BYK-3459 is a highly effective silicone surfactant. The additive causes a considerable reduction in the surface tension in aqueous adhesive systems. It thereby improves the wetting of critical substrates.

Recommended levels

0.05–0.5 % 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

It is preferable to add the additive to the already completed formulation. However, it can be used at any stage during manufacture.

Home Care and I&I**Special features and benefits**

BYK-3459 is a highly effective silicone surfactant with a considerable reduction in the surface tension to improve the substrate wetting and leveling in aqueous maintenance products. It only marginally, if at all, stabilizes the foam, does not impair the subsequent layer and does not increase the surface slip.

Recommended use

The additive is particularly recommended for aqueous, plasticizer-free floor care products and wax cleaning agents.

Recommended levels

0.05–0.5 % 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

It is preferable to add the additive to the already completed formulation. However, it can be used at any stage during manufacture.

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