

Data sheet Issue 01/2023

BYK-313

Silicone-containing surface additive for solvent-borne coating systems with a strong reduction in the surface tension. Excellent substrate wetting, prevents cratering and increases surface slip. Particularly suitable for baking systems, thermally stable up to 230 °C. Aromatic-free variant of BYK-310.

Product data

Aromatic-free SVHC label-free (EU SDS)

Composition Solution of a polyester-modified polydimethylsiloxane.

Typical properties

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

Density (20 °C): Non-volatile matter (10 min, 150 °C): Solvents: Flash point: 0.98 g/ml 15 % Methoxypropylacetate 45 °C

Storage and transportation

Separation or turbidity may occur at temperatures below 5 °C. Warm to 20 °C and mix well.

Special note

BYK-313 is the aromatic-free variant of BYK-310.

Applications

Coatings industry

Special features and benefits

The additive provides a strong reduction in the surface tension of coating systems. It therefore especially improves substrate wetting and prevents cratering. Surface slip and gloss are also increased. BYK-313 also provides very good leveling properties, even with thin layers.

BYK-313 is a thermally stable silicone additive which, in contrast to conventional silicones, shows no thermal decomposition at temperatures between 150 °C and 230 °C. Consequently, when re-coating, no loss in adhesion and no surface defects occur, which can be caused by the decomposition products of conventional silicones above 150 °C. The additive is HAPS- and aromatic-free.

Recommended use

The additive is particularly recommended for all solvent-borne coatings.

Can coatings	
Coil coatings	
Industrial coatings	
Automotive OEM coatings	
Wood and furniture coatings	

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

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

Special note

Unlike so-called silicone oils, this additive is very user-friendly. However, before use, one should determine in test series whether foam is stabilized in certain systems. Similarly, the recoatability, the migration of the silicone in stacked sheets as well as cratering should be checked.



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This issue replaces all previous versions.