

BYK-SILCLEAN 3700

Silicone-containing surface additive for solvent-borne coating systems to improve the easy-to-clean effect. Hydroxy-functional. Permanent effect after cross-linking.

Product data

Composition

Solution of a silicone-modified polyacrylate (OH-functional).

Typical properties

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

Density (20 °C):	1.00 g/ml
Non-volatile matter (30 min, 150 °C):	25 %
Solvents:	Methoxypropylacetate
Flash point:	43 °C
OH value:	ca. 30 mg KOH/g

Storage and transportation

To be stored and transported at a temperature between -15 °C and 50 °C

Applications

Coatings industry

Special features and benefits

Due to its high surface activity, the additive accumulates on the surface of the coating where, on account of its OH reactivity, it can be integrated in the polymer network by reacting with suitable binders. If the additive is fixed to the coating surface via its reactive groups, the properties, which are caused by the use of the additive, are maintained for a long period of time. In a multitude of coating systems, BYK-SILCLEAN 3700 increases the hydrophobic and oleophobic properties, which can significantly improve the water- and oil-repelling behavior. Moreover, it brings about a reduced dirt adhesion with a simultaneously increased easy-to-clean effect. The additive increases substrate wetting, leveling, surface slip, water resistance (blush resistance), anti-blocking properties and weather resistance. Therefore, we recommend that BYK-SILCLEAN 3700 is initially evaluated in the formulation without using other surface additives. If additional leveling is required, leveling additives can be added in a second step. BYK-SILCLEAN 3700 can also be used to improve anti-graffiti and tape release properties.

Recommended use

BYK-SILCLEAN 3700 is hydroxyl-functional and is recommended for use in solvent-borne top coats. The following binder systems are particularly suitable for anchoring the additive in the binder matrix: 2-pack polyurethane, alkyd/melamine, polyester/melamine, acrylate/melamine and acrylate/epoxy combinations.

Recommended levels

3–6 % additive (as supplied) based on the 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 should be added towards the end of the production process and incorporated in the coating at a sufficient shear rate.

Special note

If using the additive in applications where it is cross-linked with the binder, it is important that the coating is evenly and thoroughly sanded before recoating or retouching in order to ensure sufficient adhesion.

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This issue replaces all previous versions.