

BYK-UV 3500

Crosslinking, silicone-containing surface additive for radiation-curable printing inks, coatings and adhesives with a considerable reduction in surface tension. Very good substrate wetting and tape release, increases the surface slip and improves leveling.

Product Data

Composition

Polyether-modified, acryl-functional polydimethylsiloxane

Typical Properties

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

Density (20 °C): 1.04 g/ml
Refractive index (20 °C): 1.443
Active substance: 100 %

Storage and Transportation

To be stored and transported at a temperature below 40 °C. Protect the additive from direct sunlight.

Applications

Printing Inks and Overprint Varnishes

Special Features and Benefits

Due to its high surface activity, BYK-UV 3500 accumulates on the surface of the coating. Its acrylic functionality enables it to be incorporated in the polymer network and therefore to be anchored permanently to the coating surface. The additive provides high surface slip and improves leveling and substrate wetting.

Recommended Use

BYK-UV 3500 is particularly recommended for all non-aqueous, radiation-curable flexographic, offset and screen printing inks, also for radiation-curable overprint varnishes.

Recommended Levels

0.2-1 % additive (as supplied) based upon 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 can be incorporated during any stage of the production process, including post-addition.

Adhesives

Special Features and Benefits

Due to the considerable reduction in the surface tension, BYK-UV 3500 improves the substrate wetting and the leveling of adhesives. Due to its high surface activity, the additive accumulates on the surface. Its acrylic functionality enables it to be incorporated in the polymer network and therefore to be permanently anchored to the surface. Its good compatibility enables highly transparent adhesives to be formulated without turbidity.

Recommended Use

Recommended for non-aqueous, radiation-curable adhesive systems.

Recommended Levels

0.1-0.5 % additive (as supplied) based upon 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 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. Nevertheless, the effect on adhesive properties must be tested.

Coatings Industry

Special Features and Benefits

Due to its high surface activity, BYK-UV 3500 accumulates on the surface of the coating. Its acrylic functionality enables it to be incorporated in the polymer network and therefore to be anchored permanently to the coating surface. As a result of crosslinking via its acrylic functionality, in aqueous UV systems, BYK-UV 3500 provides very good leveling, high surface slip and tape release with permanent effect. As a result of crosslinking via its acrylic functionality and the improvement in leveling, in non-aqueous, radiation-curable systems, BYK-UV 3500 provides outstanding surface slip and tape release with permanent effect.

Recommended Use

The additive is particularly suited to aqueous and non-aqueous, radiation-curable coatings, whereby it can crosslink with the binder in these systems. It is also possible to use it in conventional curing systems, however without crosslinking with the binder.

Recommended Levels

0.05-2 % 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.

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Data Sheet
Issue 07/2020



Additive Guide



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This issue replaces all previous versions – Printed in Germany