BYK-UV 3505

Crosslinkable surface additive for radiation curable systems for improving substrate wetting, scratch resistance, and easy-to-clean properties.

Product Data

Composition
Solution of a multi-acrylic functional, modified polydimethylsiloxane

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

Density (68 °F):	8.85 lbs/US gal
Refractive index:	1.456
Active substance:	40 %
Solvents:	Tripropylene glycol diacrylate (TPGDA)
Flash point:	> 140 °F

Food Contact Legal Status
For the current food contact legal status, please contact our product safety department or visit www.byk.com for further information.

Storage and Transportation
Do not store or transport above 95 °F.

Special Note
Protect the additive from direct sunlight.

Applications

Coatings Industry

Special Features and Benefits
Even at a low dosage BYK-UV 3505 displays a strong reduction in surface tension and improves substrate wetting, even of difficult substrates. Surface slip is significantly increased even at low dosage. This leads, among other things, to an improvement in scratch resistance and the easy-to-clean properties. As a result of its multiple acrylic functionality, BYK-UV 3505 crosslinks with radiation curable systems and thereby produces long-lasting effects without migrating. Its recoatability must be tested, surface sanding is recommended. The product is very compatible and causes no haze in the coating system. BYK-UV 3505 is suitable for solvent-free, solvent-borne, and aqueous systems.

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Data Sheet
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Recommended Use

Wood and furniture coatings	■
Industrial coatings	■

■ particularly recommended □ recommended

Recommended Levels

0.1–0.3 % additive (as supplied) based upon total formulation, in exceptional cases up to 1 %.

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

The additive is functional and is crosslinked into radiation curable systems.

Printing Inks

Special Features and Benefits

BYK-UV 3505 improves substrate wetting and the leveling of 100 %, UV-curing overprint varnishes. As a result of the strong reduction in surface tension, this product is primarily extremely well suited to wetting critical substrates and to conventional offset inks. The additive also causes a reduction in the coefficient of friction (COF) and a good tape release effect. The use of BYK-UV 3505 leads to an increase in gloss. The good compatibility with standard binders enables highly transparent overprint varnishes to be produced.

Recommended Use

100 % UV overprint varnishes	■
Offset inks	■

■ particularly recommended

Recommended Levels

0.3-1% additive (as supplied) based upon total formation.

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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