

NANOBYK-3605

Nanoparticle dispersion to improve the scratch and abrasion resistance of solvent-free and solvent-borne radiation curable systems.

Product Data

Composition

Dispersion of surface-treated silica nanoparticles

Typical Properties

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

Density (68 °F): 11.60 lbs/US gal
Carrier: Hexanediol diacrylate (HDDA)
Flash point: 174 °F
Nanoparticle content: 50 %
Particle size D50: 20 nm

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

Storage and transport between 5 °C and 40 °C. Protect from direct sunlight.
The additive is sensitive to moisture.
Separation or turbidity may occur during storage and transportation. Mix well before use.

Applications

Coatings industry

Special Features and Benefits

The additive improves the scratch and abrasion resistance of coating surfaces without negatively affecting properties such as gloss and transparency. It also increases chemical resistance.
The additive is particularly recommended for solvent-free and solvent-borne radiation curable wood and furniture coatings as well as industrial coatings.

Recommended Levels

1-10 % additive (as supplied) based upon total formulation.
The dosage levels are indicated for the purpose of orientation. The optimal dosage level should be indicated by means of a dosage test series.
The amount of additive used depends on the thickness of the coating layer. Thick-layer applications require less of the additive. In most cases, 1-4 % is sufficient. Dosages up to 20 % are recommended for extremely resistant surfaces.

Incorporation and Processing Instructions

The product reaches its full effectiveness if added under low shear forces. This ensures an even distribution in the resin system. We recommend using the additive in combination with products that increase surface slip, such as BYK-UV 3500.

Special Note

Stir the additive well before processing. Remove dried additive remainders from the container since they may lead to seeding if they reach the end product.