

# NANOBYK-3602

Nanoparticle dispersion (aluminum oxide) to improve the scratch resistance of solvent-borne and solvent-free, radiation curable coatings.

## Product Data

### Composition

Aluminum oxide nanoparticle dispersion

### Typical Properties

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

Density (20 °C):	1.36 g/ml
Non-volatile matter (10 min., 150 °C):	97 %
Carrier:	Hexanediol diacrylate (HDDA)
Nanoparticle content:	30 %
Particle size D50:	40 nm
Viscosity (20 °C):	20 mPa·s

### Food Contact Legal Status

For the current food contact legal status, please contact our product safety department or visit [www.byk.com](http://www.byk.com) for further information.

### Storage and Transportation

To be stored and transported between 10 °C and 40 °C. Separation or turbidity may occur during storage and transportation. Mix well before use.

### Special Note

The product must be stirred thoroughly before processing.

## Applications

### Coatings Industry

#### Special Features and Benefits

The additive improves the scratch resistance of solvent-free and solvent-borne, radiation-curable coatings and is particularly recommended for industrial coatings and wood coatings. Even low levels of 1.5-6.0 % of the additive considerably improve the scratch resistance without having a significant impact on the optical properties such as gloss, color, transparency and other physical properties. The additive is also ideal for flexible clear coatings which are applied to substrates such as PVC floorings.

#### Recommended Levels

1.5-6.0 % 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 product reaches its full effectiveness when added at low shear forces. This ensures that even distribution in the binder system is achieved.

## Special Note

NANOBYK-3602 can be combined with silicone-containing surface additives. For radiation-curable systems we therefore recommend using NANOBYK-3602 in conjunction with, for example, BYK-UV 3500, BYK-UV 3505, BYK-UV 3510 or BYK-UV 3575.



Additive Guide



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