NANOBYK-3600

Nanoparticle dispersion (aluminum oxide) to improve the scratch resistance of aqueous, 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):	1.56 g/ml
Non-volatile matter (10 min., 150 °C):	55 %
Carrier:	Water
Nanoparticle content:	50 %
Particle size D50:	40 nm
Viscosity (20 °C):	25 mPa·s

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
To be stored and transported between 5 °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. Dried additive residues must be removed from the container since they can lead to seeding when introduced into the final product.

Applications

Coatings Industry

Special Features and Benefits
The additive improves the scratch resistance of coating surfaces and is particularly recommended for aqueous, radiation-curable parquet and furniture coatings. Even low levels of 1.0-5.0 % 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.

Recommended Levels
1.0-5.0 % 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-3600 can be combined with silicone-containing surface additives. For radiation-curable systems we therefore recommend using NANOBYK-3600 in conjunction with, for example, BYK-UV 3500, BYK-UV 3505, BYK-UV 3510 or BYK-UV 3575. For non-radiation-curable systems we recommend NANOBYK-3600 in conjunction with, for example, BYK-307, BYK-333 or BYK-378.

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