NANOBYK-3822

Nanoparticle dispersion (zinc oxide) for long-term UV protection in aqueous systems.

Product Data

Composition
Zinc oxide nanoparticle dispersion

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

Density (20 °C):	1.52 g/ml
Non-volatile matter (10 min., 150 °C):	45%
Carrier:	Water
Nanoparticle content:	40 %
Particle size D50:	20 nm

Storage and Transportation
To be stored and transported between 5 °C and 40 °C.

Special Note
The product must be stirred thoroughly before processing. Dried additive residues must be removed from the container since they can lead to seeds when introduced into the final product. Containers that are not completely emptied must be closed immediately after use as this may otherwise lead to seeding.

Applications

Coatings Industry

Special Features and Benefits
The zinc oxide nanoparticles dispersed in this additive provide long-term UV protection. This improves the protection of the film and substrate without having a significant impact on optical characteristics such as gloss, color, transparency, and other physical properties. Use in combination with organic radical scavengers (HALS) is recommended.

Recommended Use
The additive is recommended in particular for aqueous, transparent wood and furniture coatings; it is also suitable for use in architectural coatings.

Recommended Levels

2-6 % additive (as supplied) based on a solid resin.

The above recommended levels can be used for orientation.Optimal levels are determined through a series of laboratory tests. The optimal dosage level of UV absorber is dependent on the layer thickness of the coating film. Thin layers require higher dosage levels while lower dosage levels are sufficient for thick-layer systems.

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.

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