

NANOBYK-3810

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

Product Data

Composition

Cerium oxide nanoparticle dispersion

Typical Properties

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

Density (20 °C):	1.21 g/ml
Non-volatile matter (20 min., 150 °C):	23 %
Carrier:	Water
Nanoparticle content:	18 %
Particle size D50:	10 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. Separation may occur. Stir before use.

Applications

Coatings Industry

Special Features and Benefits

The cerium oxide nanoparticles dispersed in this additive provide long-term UV protection and stabilize the coating film to prevent fading and degradation. Gloss and transparency are not impacted due to the small size of the nanoparticles. Use in combination with organic radical scavengers (HALS) is recommended.

Recommended Use

The additive is particularly recommended for use in aqueous architectural coatings for wood care applications.

Recommended Levels

4-8 % additive (as supplied) based upon a solid binder.

The above recommended levels can be used for orientation. Optimal dosage 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 layered 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.

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.



Additive Guide



BYK-Chemie GmbH
P.O. Box 10 02 45
46462 Wesel
Germany
Tel +49 281 670-0
Fax +49 281 65735

info@byk.com
www.byk.com

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