DISPERBYK-2164

Wetting and dispersing additive for solvent-borne coatings and pigment concentrates. Cost-effective alternative to DISPERBYK-164 and DISPERBYK-167.

Product Data

Composition
Solution of modified polyurethane

Aromatic-free

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

Amine value:	14 mg KOH/g
Density (20 °C):	1.03 g/ml
Non-volatile matter (20 min., 150 °C):	60 %
Solvents:	Butylacetate/Methoxypropylacetate 2/3
Flash point:	33 °C

Special Note
The after-treatment of some organic pigments may negatively affect the efficiency of the additive. In such cases, tests with the untreated pigment of the same type may be successful. When used in coil coatings, the interaction of this cationic additive with the acid catalyst must be taken into account. Amine-blocked acids are less suitable than free acids or epoxy-blocked acids. This problem can be avoided by using additives from the DISPERBYK-170 product line. Deflocculated pigments have a higher tendency to settle. This is particularly true for inorganic pigments with a high density. Using liquid rheological additives such as BYK-410 or BYK-430 during grinding prevents this problem.

Applications

Coatings Industry

Special Features and Benefits
The additive deflocculates pigments and stabilizes them by means of steric hindrance. It provides equal electrical charge to the pigment particles. The resulting repulsion and the steric stabilization prevent a possible co-flocculation, which leads to flood and float-free color in pigment mixtures. The deflocculating properties of the additive increase gloss, color strength, transparency, and hiding power and reduce the viscosity of the millbase.

Recommended Use
This additive should be given priority in new formulations due to having a higher solids content and being aromatic-free. It is an alternative to DISPERBYK-164 and DISPERBYK-167 for solvent-borne pigment concentrates and coatings.

Recommended Levels

Amount of additive (as supplied) based upon pigment:

Inorganic pigments:	12-15 %
Titanium dioxide:	3-4 %
Organic pigments:	20-35 %
Carbon blacks:	60-70 %

The above recommended levels can be used for orientation. Optimal levels are determined through a series of laboratory tests.

Incorporation and Processing Instructions

For optimum performance, the additive must be incorporated into the millbase before addition of pigments. The resin and solvent components of the millbase are pre-mixed and then the additive is slowly incorporated while stirring continuously. Do not add the pigments until the additive has been fully distributed. Post-addition (to repair faulty batches) is possible as long as the product is added slowly and under high shear forces.

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