

DISPERBYK-163 TF

Wetting and dispersing additive for solvent-borne coatings and pigment concentrates. Stabilization of pigments of all kinds. Broad compatibility for universally applicable solvent-borne pigment concentrates based on aldehyde and acrylate grinding resins. DISPERBYK-163 TF is the tin-free variant of DISPERBYK-163.

Product Data

Composition

Solution of a high molecular weight block copolymer with pigment-affinic groups

Tin-free

Typical Properties

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

Amine value:	10 mg KOH/g
Density (20 °C):	0.99 g/ml
Non-volatile matter (20 min., 150 °C):	45 %
Solvents:	Xylene/butylacetate/methoxypropylacetate 3/1/1
Flash point:	28 °C

Storage and Transportation

Separation or turbidity may occur during storage or transportation at temperatures below 0 °C. Warm to 20 °C and mix well.

Applications

Coatings Industry

Special Features and Benefits

The additive deflocculates the pigments and stabilizes them by means of steric hindrance. It also generates a uniform electrical charge in the pigment particles. The resulting repulsion effect and the steric stabilization prevent a possible coflocculation which leads to a flood- and float-free color in pigment blends. The deflocculating property of the additive results in increased gloss, color strength, transparency or hiding power, and a reduced millbase viscosity.

Recommended Use

The additive is widely compatible and is used in many solvent-borne formulations. It can also be post-added for retroactive batch correction. For reformulations, we recommend testing DISPERBYK-2163 TF.

Recommended Levels

Amount of additive (as supplied) based upon pigment:

Inorganic pigments:	15-20 %
Titanium dioxide:	4-5 %
Organic pigments:	30-60 %
Carbon black:	80-100 %

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. Pre-mix the resin and solvent components of the millbase first and then gradually let the additive flow in whilst stirring. Add the pigments only after the additive has been thoroughly distributed. A post-addition (to repair reject batches) is possible provided it takes place slowly under high shear forces.

Special Note

The treatment of some organic pigments can negatively influence the effectiveness of the additive. In these 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 observed. Amino-blocked acids are less suitable than free acids or epoxy-blocked acids. By using additives from the DISPERBYK-170 range, this problem can be avoided.



Additive Guide



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