DISPERBYK-2163 TF

Wetting and dispersing additive for solvent-borne coatings and pigment concentrates. DISPERBYK-2163 TF is the aromatic- and tin-free version of DISPERBYK-2163.

Product Data

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

Aromatic-free
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):	1.02 g/ml
Non-volatile matter (20 min., 150 °C):	45 %
Solvents:	Methoxypropylacetate/butylacetate
Flash point:	38 °C

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 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.

Applications
The additive is an economical alternative to DISPERBYK-163 TF and is therefore recommended for all applications – particularly for solvent-borne coatings and pigment concentrates.

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 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. Deflocculated pigments have a greater tendency to settle. This applies particularly to inorganic pigments, which have a high density. The use of liquid rheology additives such as RHEOBYK-410 or RHEOBYK-430 in the grinding phase counters this phenomenon.

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