DISPERBYK-168 TF

Wetting and dispersing additive for solvent-free, radiation curable coatings, printing inks and adhesives. DISPERBYK-168 TF is the tin-free variant of DISPERBYK-168 in GPTA.

Product data

Composition
Solution of modified polyurethane

Tin-free

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

Density (20 °C):	1.11 g/ml
Active substance:	30 %
Solvents:	Propoxylated glyceryl triacrylate (GPTA)
Flash point:	> 100 °C
Amine value:	10.5 mg KOH/g

Storage and transportation
Separation or turbidity may occur during storage or transportation at temperatures below 10 °C. Warm to 30–40 °C and mix well.

Applications

Printing inks

Special features and benefits
High molecular weight wetting and dispersing additive for 100% UV flexo and offset printing inks. The additive achieves an outstanding stabilization, particularly of organic pigments and carbon black pigments. The deflocculating effect of DISPERBYK-168 TF improves the color strength, transparency, and gloss of the printing ink. Due to the delivery form, DISPERBYK-168 TF does not use volatile or migration-capable solvents in UV-curable ink formulations. The additive has excellent compatibility with all common oligomers and monomers used in UV-curable printing ink formulations.

Recommended use
The additive is particularly recommended for UV-curable flexo and offset printing inks. It increases gloss and transparency. DISPERBYK-168 TF reduces the dispersion time, lowers viscosity and increases color strength.

Recommended levels
Amount of additive (as supplied) based upon pigment:

Titanium dioxide:	5–10 %
Organic pigments, carbon blacks:	30–50 %

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

Incorporation and processing instructions
Wetting and dispersing additives should generally be added to the millbase. Only in this way can they be fully effective. Pre-mix the millbase with resin and reactive thinners and then gradually pour in the additive while stirring. Add the pigments only after the additive has been thoroughly distributed.

Adhesives and sealants

Special features and benefits
The additive deflocculates fillers and pigments and stabilizes them by means of steric hindrance.
The deflocculating property of DISPERBYK-168 TF reduces the viscosity of the adhesive. The dispersion time can be shortened and the color strength of pigmented systems can be increased.

Recommended use
DISPERBYK-168 TF is recommended for the stabilization of titanium dioxide, organic fillers and pigments and carbon blacks, especially in radiation curable adhesive systems.

Recommended levels
Amount of additive (as supplied) based upon pigment:

Titanium dioxide:	5–10 %
Organic pigments, carbon blacks:	30–50 %

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

Incorporation and processing instructions
For optimal effect, the additive should be added to the resin and homogenized before adding pigments and fillers.

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.

Recommended use
The additive is recommended for radiation curable industrial coatings.

Recommended levels

Amount of additive (as supplied) based upon pigment:

Inorganic pigments:	10–15 %
Titanium dioxide:	5–6 %
Organic pigments:	30–90 %
Carbon black:	70–140 %

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.

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