

DISPERBYK-2152 TF

Tin-free hyperbranched wetting and dispersing additive for solvent-free epoxy and other reactive systems.

Product data

Composition

Modified polyester-polyether

Tin-free

Typical properties

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

Density (20 °C): 1.08 g/cm³
Non-volatile matter (10 min, 150 °C): 99.9 %

Storage and transportation

Product shelf life in unopened original packaging: 36 months
To be stored and transported at a temperature below 50 °C.

Special note

DISPERBYK-2152 TF is the tin-free version of DISPERBYK-2152.

Applications

Coatings industry

Special features and benefits

DISPERBYK-2152 TF is based on hyperbranched technology, and was specially developed for use in solvent-free epoxy systems and other reactive systems as well as for two-pack polyurethane and acid-catalyzed systems. During grinding with pigments or fillers its polyester side chains are compressed, and the adhesion forces of the aminic groups toward the surface of the pigment or filler are increased. The pigment affinic group is then adsorbed onto the surface of the pigment or filler, while the polyester side chains still shield the aminic groups from the epoxy resin. This results in a strong reduction in viscosity and no reaction with the resin, allowing long-term storage stability. DISPERBYK-2152 TF features excellent pigment wetting and deflocculation. The additive is broadly compatible, with no negative effect on yellowing, adhesion of coatings to metals, or anti-corrosion properties.

DISPERBYK-2152 TF is suitable for use in formulations that must meet the criteria of the German Committee for Health-related Evaluation of Building Products (AgBB).

Recommended use

General industrial coatings	<input checked="" type="checkbox"/>
Floor coatings	<input checked="" type="checkbox"/>
Wood and furniture coatings	<input checked="" type="checkbox"/>
Marine and protective coatings	<input checked="" type="checkbox"/>
Automotive OEM coatings	<input type="checkbox"/>
Automotive refinish coatings	<input type="checkbox"/>

especially recommended recommended

Recommended levels

% additive (as supplied) based on:

Inorganic pigments: 5-10 %
Titanium dioxide: 1-3 %
Organic pigments: 20-45 %
Carbon black: 20-80 %

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

For optimum performance, the additive must be incorporated into the millbase before addition of pigments. This enables the additive to achieve its full effectiveness. Pre-mix the resin and solvent components of the millbase and then the DISPERBYK-2152 TF is slowly incorporated while stirring. Do not add the pigments until the additive has been fully distributed.

Thermosets**Special features and benefits**

DISPERBYK-2152 TF improves the wetting and dispersion of a wide range of inorganic fillers, especially for silicon dioxides in filled thermoset applications. The additive helps to reduce the viscosity of the formulation, thereby optimizing the flow behavior or increasing the proportion of fillers in the system while maintaining the same flow behavior. In pigment pastes, it helps to wet and stabilize pigments. The use of DISPERBYK-2152 TF helps to incorporate fillers more quickly, easily, and homogeneously in production and to achieve consistent quality.

Recommended use

DISPERBYK-2152 TF is recommended for systems made from unsaturated polyester resins, vinyl ester, polyurethane, or epoxy resins, as well as acrylate syrups. If the viscosity reduction is too high, fillers can settle very heavily and should be combined with a rheological additive.

Recommended levels

% additive (as supplied) based on:

Inorganic pigments: 5-10 %
Titanium dioxide: 1-3 %
Organic pigments: 20-45 %
Carbon black: 20-80 %
Fillers: 0,3-1,5 %

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

For optimal effect, the additive should be added before the solids.

Adhesives and sealants**Special features and benefits**

The additive improves the wetting and dispersion of mineral fillers such as calcium carbonate and aluminum trihydroxide (ATH). It is also suitable for aluminum powder and aluminum oxide. This achieves a lower viscosity and makes higher filler loading possible.

Recommended use

The additive is particularly recommended for adhesives based on epoxy resins, silane-modified polymers, and polyurethane resins.

Recommended levels

0.5-1.5 % additive (as supplied) based on the fillers.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

For optimum performance, the additive should be added before the solids.

Construction chemicals**Special features and benefits**

DISPERBYK-2152 TF improves the wetting and dispersion of mineral fillers such as fly ash and calcium carbonate. The additive is particularly suitable for highly filled systems with low viscosities.

Recommended use

The additive is particularly recommended for moisture-curing and non-moisture-curing injection mortars as well as flowable grouting mortars based on epoxy and polyurethane resins.

Recommended levels

0.5-1.5 % additive (as supplied) based on fillers.

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.

Incorporation and processing instructions

For optimal effect, the additive should be added before the solids.

Leather finishes and coated fabrics**Special features and benefits**

DISPERBYK-2152 TF is based on hyperbranched technology, and was specially developed for use in solvent-free epoxy systems and other reactive systems as well as for two-pack polyurethane and acid-catalyzed systems. During grinding with pigments or fillers its polyester side chains are compressed, and the adhesion forces of the aminic groups toward the surface of the pigment or filler are increased. The pigment affinic group is then adsorbed onto the surface of the pigment or filler, while the polyester side chains still shield the aminic groups from the epoxy resin. This results in a strong reduction in viscosity and no reaction with the resin, allowing long-term storage stability. DISPERBYK-2152 TF features excellent pigment wetting and deflocculation. The additive is broadly compatible, with no negative effect on yellowing and interlayer adhesion.

DISPERBYK-2152 TF is suitable for use in formulations that must meet the criteria of the German Committee for Health-related Evaluation of Building Products (AgBB).

Recommended levels

% additive (as supplied) based on:

Inorganic pigments:	5-10 %
Titanium dioxide:	1-3 %
Organic pigments:	20-45 %
Carbon black:	20-80 %

The above recommended levels can be used for orientation. The optimum dosage should be determined by application-related test series.



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