

# DISPERBYK-2157

Solvent-free wetting and dispersing additive for non-polar solvent-borne and solvent-free inkjet inks, printing inks, protective and architectural coatings as well as PVC plastisols.

## Product data

### Composition

Polyester-modified polyalkylene imine

Solvent-free

### Typical properties

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

Density (20 °C): 0.95 g/ml  
Active substance: 100 %  
Acid value: < 7 mg KOH/g  
Amine value: 35 mg KOH/g

## Applications

### Coatings industry

#### Special features and benefits

DISPERBYK-2157 deflocculates pigments and stabilizes them by means of steric hindrance. It prevents a possible coflocculation, which leads to non-floating coloring in pigment blends. The strong deflocculating effect of DISPERBYK-2157 results in increased gloss, optical density, transparency or coverage, and a reduced millbase viscosity.

#### Recommended use

Thanks to its non-polar character, DISPERBYK-2157 is particularly suited to low-polarity coating systems, for example, based on alkyd resins or acrylates/TPA. It stabilizes both organic and inorganic pigments. DISPERBYK-2157 greatly reduces the viscosity of the millbase which enables a higher pigment content in pigment concentrates.

#### Recommended levels

Amount of additive (as supplied) based upon pigment:

Inorganic pigments: 4–10 %  
Titanium dioxide: 1–4 %  
Organic pigments: 10–40 %  
Carbon black: 15–50 %

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

### **Incorporation and processing instructions**

Wetting and dispersing additives should generally be added to the millbase. Only in this way they can be fully effective. In a binder-free dispersion, we recommend pre-mixing the solvent components of the millbase with the additive whilst stirring, prior to adding the pigment. If the grinds contain binder, the binder, solvent, and additive should be homogenized prior to adding the pigment.

### **Printing inks**

#### **Special features and benefits**

DISPERBYK-2157 deflocculates pigments and stabilizes them by means of steric hindrance. It prevents a possible coflocculation, which leads to non-floating coloring in pigment blends. The strong deflocculating effect of DISPERBYK-2157 results in increased gloss, optical density, transparency or coverage, and a reduced millbase viscosity. The long-term storage stability of the pigment concentrate and the finished color is improved.

#### **Recommended use**

Thanks to its non-polar character, DISPERBYK-2157 is particularly suited to low-polarity printing inks, for example, based on fatty acid esters or paraffins. It stabilizes both organic and inorganic pigments. DISPERBYK-2157 greatly reduces the viscosity of the millbase which enables a higher pigment content in pigment concentrates.

#### **Recommended levels**

Amount of additive (as supplied) based upon pigment:

Inorganic pigments:	2–5 %
Titanium dioxide:	2–5 %
Organic pigments:	4–10 %
Carbon black:	4–10 %

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

### **Incorporation and processing instructions**

Wetting and dispersing additives should generally be added to the millbase. Only in this way can they be fully effective. In a binder-free dispersion, we recommend pre-mixing the solvent components of the millbase with the additive whilst stirring, prior to adding the pigment. If the grinds contain binder, the binder, solvent, and additive should be homogenized prior to adding the pigment.

### **Inkjet Inks**

#### **Special features and benefits**

DISPERBYK-2157 deflocculates pigments and stabilizes them by means of steric hindrance. It prevents a possible coflocculation, which leads to non-floating coloring in pigment blends. The strong deflocculating effect of DISPERBYK-2157 results in increased gloss, optical density, transparency or coverage, and a reduced millbase viscosity. The long-term storage stability of the pigment concentrate and the finished ink is improved.

#### **Recommended use**

Thanks to its non-polar character, DISPERBYK-2157 is particularly suited to low-polarity inkjet inks, for example, based on fatty acid esters or paraffins. It stabilizes both organic and inorganic pigments. DISPERBYK-2157 greatly reduces the viscosity of the millbase which enables a higher pigment content in pigment concentrates.

**Recommended levels**

Amount of additive (as supplied) based upon pigment:

Inorganic pigments:	5–20 %
Titanium dioxide:	2–10 %
Organic pigments:	10–60 %
Carbon black:	15–100 %

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

**Incorporation and processing instructions**

Wetting and dispersing additives should generally be added to the millbase. Only in this way can they be fully effective. In a binder-free dispersion, we recommend pre-mixing the solvent components of the millbase with the additive whilst stirring, prior to adding the pigment. If the grinds contain binder, the binder, solvent, and additive should be homogenized prior to adding the pigment.

**PVC plastisols****Special features and benefits**

DISPERBYK-2157 deflocculates pigments and stabilizes them by means of steric hindrance. It prevents a possible coflocculation, which leads to non-floating coloring in pigment blends. The strong deflocculating effect of DISPERBYK-2157 enhances gloss and coverage and reduces the pigment paste viscosity and improves long-term storage stability.

**Recommended use**

DISPERBYK-2157 stabilizes both organic and inorganic pigments. The additive strongly reduces the viscosity of the pigment pastes irrespective of the plasticizer used, which makes it possible to achieve a higher pigment content in the paste.

**Recommended levels**

Amount of additive (as supplied) based upon pigment:

Inorganic pigments:	2–5 %
Titanium dioxide:	1–3 %
Organic pigments:	5–30 %
Carbon black:	5–30 %

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

**Incorporation and processing instructions**

Wetting and dispersing additives should generally be added to the plasticizer and pre-mixed before adding the pigment. Only in this way can they be fully effective.



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