Data Sheet Issue 01/2014

# **DISPERPLAST-1150**

Solvent-free wetting and dispersing additive for PVC- and thermoplastics applications to improve the dispersion and reduce the viscosity of filled and pigmented systems. Suitable for producing liquid color masterbatches and solid masterbatches.

# **Product Data**

#### Composition

Polar, acidic ester of long chain alcohols

# **Typical Properties**

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

Acid value: 95 mg KOH/g Density (20 °C): 1.01 g/ml Refractive index (20 °C): 1.459 Flash point: 186 °C

# **Food Contact Legal Status**

For the current food contact legal status, please contact our product safety department or visit www.byk.com for further information.

## **Storage and Transportation**

The product can become solid below 20 °C. Warm to 30-60 °C and mix well. Product is hygroscopic.

# **Applications**

# **PVC Plastisols**

#### **Special Features and Benefits**

DISPERPLAST-1150 reduces the viscosity of pigmented and filled PVC plastisols. It is particularly recommended for inorganic pigments, zinc oxide and blowing agents (azodicarbonamide). The product enables a greater solids content, improves the color strength of the pigments and shortens the dispersion time. It also prevents any separation of the plasticizer. The tendency of settling is reduced.

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#### **Recommended Levels**

Amount of additive (as supplied) based upon solids:

Inorganic pigments: 1-3 % Organic pigments: 5-7 % Inorganic fillers: 1-3 % Blowing agent: 1-2 % Zinc oxide: 1-3 %

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

# **Incorporation and Processing Instructions**

The additive should be added to the liquid components prior to incorporating the solids. DISPERPLAST-1150 can be used in either a liquid, solid or partially solid form. The product efficiency is not influenced if it is carefully dispersed in the plasticizer.

#### **Thermoplastics**

#### **Special Features and Benefits**

DISPERPLAST-1150 absorbs onto the pigment surface and generally enables a better processing and dispersion of the pigments. It is recommended for producing fatty acid-based liquid color masterbatches with inorganic pigments which are used to color thermoplastics (PE, PP, PET). In doing so, it significantly reduces the viscosity therefore enabling a greater pigmentation. The additive is also recommended in solid masterbatches for stabilizing inorganic pigments and effect pigments in PE, PP and PET. In these systems, it improves the torque build-up, the throughput, the viscosity (MVR) and the filter pressure value (FPV).

#### **Recommended Levels**

Amount of additive (as supplied) based upon solids:

Inorganic pigments: 0.5-3 % Titanium dioxides: 0.5-3 % Effect pigments: 0.5-3 %

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

#### **Incorporation and Processing Instructions**

For the production of liquid color masterbatches, DISPERPLAST-1150 is slowly added to the carrier system whilst stirring. Only add the pigments once the additive has been uniformly distributed. For solid masterbatches, it is added to the solids or the polymer carrier before or during compounding.







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