

Data Sheet Issue 10/2012

**VOC-free** 

(< 1500 ppm)

# DISPERBYK-192

VOC and solvent-free wetting and dispersing additive for aqueous coating systems, printing inks and liquid color masterbatches for thermoplastics and to manufacture pastes for unsaturated polyester resin systems or gel coats. Particularly suitable for producing stable effect pigment dispersions.

# **Product Data**

**Composition** Copolymer with pigment affinic groups

# **Typical Properties**

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

Density (68 °F): 8.76 lbs/US gal

## 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 may become solid below 20 °C (68 °F). Heat to >30 °C (86 °F) and stir.

# **Applications**

# **Ambient Curing Systems**

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

The additive deflocculates pigments by means of steric stabilization. As a result of the small particle size of the deflocculated pigments, the color strength is improved. Moreover, the viscosity is reduced so that a higher pigment loading is possible. The additive prevents flooding/floating even in complex pigment/paste combinations and difficult color shades.

#### **Recommended Use**

Particularly recommended for producing pigment pastes for gel coats; also recommended to stabilize pigments in gel coats.

#### **Recommended Levels**

Amount of additive (as supplied) based upon pigment:

Titanium dioxides:2-5 %Organic pigments:10-15 %Carbon blacks:10-20 %

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

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## **Incorporation and Processing Instructions**

For optimum performance, the additive should be added slowly to the resin whilst stirring. Only add the pigments once the additive has been homogeneously and uniformly distributed. Dispersion then takes place and finally, more resin is added if necessary.

# **Coatings Industry**

## **Special Features and Benefits**

The additive deflocculates pigments by means of steric stabilization. As a result of the small particle sizes of the deflocculated pigments, high levels of gloss can be achieved and the color strength is improved. Transparency and hiding power also increase and viscosity is reduced. In this way, the flow characteristics are also improved and higher pigment loading is possible.

## **Recommended Use**

| Architectural coatings |  |
|------------------------|--|
| Automotive coatings    |  |
| Can coatings           |  |
| Leather finishes       |  |

especially recommended

This additive is especially designed for the production of stable aqueous effect pigment dispersions (with or without grinding resin).

#### **Recommended Levels**

Amount of additive (as supplied) based upon pigment:

| Inorganic pigments: | 5-10%   |
|---------------------|---------|
| Titanium dioxides:  | 4-7 %   |
| Organic pigments:   | 15-30 % |
| Carbon blacks:      | 30-50 % |
| Effect pigments:    | 3-5 %   |

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 should be added slowly (while stirring) to the grinding resin, the co-solvent blend or the shear-stable dispersion. In systems without binders the additive is simply mixed with the water. Only add the pigments once the additive has been homogeneously and uniformly distributed.

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#### **Printing Inks**

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

The additive deflocculates pigments by means of steric stabilization. As a result of the small particle sizes of the deflocculated pigments, high levels of gloss can be achieved and the color strength is improved. The transparency is also increased and the viscosity is reduced. In this way, the flow characteristics are also improved and higher pigment loading is possible.

#### **Recommended Use**

Particularly recommended for gravure, flexo and screen printing inks. The additive is especially suitable for producing binder-free, stable pigment concentrates with a pigment content of 30-60 %. These pigment concentrates can be let down with standard aqueous binders, for example acrylate dispersions or water-soluble acrylic resins.

#### **Recommended Levels**

Amount of additive (as supplied) based upon pigment:

Titanium dioxides:2-5 %Organic pigments:10-15 %Carbon blacks:10-20 %

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

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

Grinding should take place in water or with a grinding resin. Only add the pigments once the additive has been homogeneously and uniformly distributed.

#### **Thermoplastics**

#### **Recommended Use**

The additive is recommended for producing liquid color masterbatches which are based on fatty acid esters and which are used to color thermoplastics (particularly PET).

#### **Recommended Levels**

Amount of additive (as supplied) based upon pigment:

Inorganic pigments:5-10 %Titanium dioxides:4-7 %Organic pigments:15-30 %Carbon blacks:30-50 %Effect pigments:3-5 %

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 should be added slowly to the carrier system whilst stirring. Only add the pigments once the additive has been homogeneously and uniformly distributed.

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