DISPERBYK-118

Wetting and dispersing additive for solvent-borne systems to stabilize acidic, neutral and basic titanium dioxides, colorful inorganic pigments, transparent iron oxides, fillers, and effect pigments.

Product Data

Composition
Linear polymer with highly polar, different pigment-affinic groups

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

Acid value:	36 mg KOH/g
Density (20 °C):	1.07 g/ml
Non-volatile matter:	80 %
Solvents:	Methoxypropylacetate

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 Transport
The product is opaque and has a tendency to separate.

Applications

Liquid Coatings

Special Features and Benefits
DISPERBYK-118 was specifically developed to stabilize titanium dioxide. In comparison with other additives titanium dioxide can be stabilized with acidic, basic or neutral post-treatment. Furthermore, DISPERBYK-118 is extremely well suited for use with fillers, matting agents, inorganic colored pigments, transparent iron oxides, and effect pigments. DISPERBYK-118 greatly reduces the mill base viscosity and thereby enables high filler loading of concentrates. It increases gloss and reduces haze in coating systems. DISPERBYK-118 can also be used in coating systems which are applied directly onto metal since it has no negative impact on adhesion.

Recommended Use

Industrial coatings	■
Wood and furniture coatings	■
Protective coatings	■
Automotive coatings	■

■ particularly recommended

Recommended Levels

Additive dosage as supplied based on pigment.

Inorganic pigments:	3-6 %
Titanium dioxides:	1-2.5 %
Effect pigments:	0.5-2.5 %
Fillers:	0.5-2 %

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

Incorporation and Processing Instructions
Wetting and dispersing additives should generally be added to the mill base. Only in this way can they be fully effective. Pre-mix the resin and solvent components of the mill base and then gradually let the additive flow in whilst stirring. Only add the pigments when the additive has been thoroughly distributed.

Printing Inks

Special Features and Benefits
DISPERBYK-118 is suitable for stabilizing inorganic pigments, in particular stabilizing titanium dioxide in solvent-borne printing inks. In addition, DISPERBYK-118 greatly reduces mill base viscosity.

Recommended Levels
Additive dosage as supplied based on pigment. 3-5 % based on inorganic pigments and titanium dioxide.

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 mill base. Only in this way can they be fully effective. Pre-mix the resin and solvent components of the mill base and then gradually let the additive flow in whilst stirring. Only add the pigments when the additive has been thoroughly distributed.

Ambient Curing Systems

Special Features and Benefits
DISPERBYK-118 was specifically developed for stabilizing acidic, basic and neutral titanium dioxides. Moreover, DISPERBYK-118 is extremely well suited for use with fillers and inorganic colored pigments. DISPERBYK-118 greatly reduces the mill base viscosity and thereby allows increased filler loading. DISPERBYK-118 cannot be used in cobalt-accelerated systems because it prevents curing. It is therefore recommended for epoxy and polyurethane systems.

Recommended Levels
Additive quantity (as supplied) based upon pigment.

Inorganic pigments:	5-10 %
Titanium dioxides:	1-3 %
Organic pigments:	20-45 %
Carbon blacks:	20-80 %

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

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.

Adhesives & Sealants

Special Features and Benefits
The additive improves the wetting and dispersing of all inorganic fillers such as calcium carbonate and aluminum hydroxide (ATH). DISPERBYK-118 is all purpose for titanium dioxides. The additive causes lower viscosity and enables higher filler loading.

Recommended Use
The additive is particularly recommended for adhesives and sealants based on polyurethane and epoxy resins.

Recommended Levels
Additive dosage as supplied based on pigment.

Inorganic pigments:	0.5-2 %
Titanium dioxides:	1-3 %
Carbon blacks:	20-80 %

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

Incorporation and Processing Instructions
For optimum effect the additive should be added before the solids.

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Additive Guide

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