BYK-220 S

Wetting and dispersing additive for ambient-curing plastic systems and solvent-borne coatings to achieve pigment stabilization and to reduce flooding/floating. Contains silicone.

Product Data

Composition
Solution of a low molecular weight, unsaturated acidic polycarboxylic acid polyester with a polysiloxane copolymer

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

Acid value:	100 mg KOH/g
Density (68 °F):	8.01 lbs/US gal
Non-volatile matter (10 min., 302 °F):	52 %
Solvents:	Alkylbenzenes
Flash point:	118 °F

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
Separation or turbidity may occur during storage and transportation. Mix well before use. Warm to 30-60 °C (86-140 °F) and mix well.

Special Note
White spirit-based coating systems or those that are diluted with white spirit have a limited compatibility.

Applications

Ambient-curing Plastic Systems

Special Features and Benefits
BYK-220 S improves the dispersion of all conventional fillers, such as calcium carbonate and aluminum hydroxide. It reduces the viscosity of the filled resin, which enables an increased filler content. In the majority of cases, the settling of the filler is significantly reduced during storage and when processing. BYK-220 S is suited to stabilizing pigments in gel coats. The additive also contains a small quantity of a polysiloxane copolymer to reduce flooding and floating. This prevents the formation of Bénard cells and improves the surface slip and leveling.

Recommended Use
The additive is particularly recommended for unsaturated polyester resins, gel coats, acrylic, polyurethane and epoxy resins and displays the highest efficiency in all applications.

Recommended Levels
0.5-1.5 % additive (as supplied) based upon the filler.

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 before the solids.

Coatings Industry

Special Features and Benefits
The additive provides a targeted, controlled flocculation of the pigments. The system builds bridges between the individual pigment particles, thereby creating three-dimensional networks. This controlled flocculation of the pigments primarily prevents flooding/floating along with settling and sagging. BYK-220 S is suited to stabilizing pigments in industrial coatings and architectural coatings. It increases gloss, prevents floating and reduces the millbase viscosity. The additive also contains a small quantity of a polysiloxane copolymer to reduce flooding and floating. This prevents the formation of Bénard cells and improves the surface slip and leveling, and also the orientation of matting agents and aluminum pigments. In the majority of cases, it is no longer necessary to add the silicone additives which are usually required.

Recommended Levels
Amount of additive (as supplied) based upon pigment:

Inorganic pigments:	3-10 %
Titanium dioxides:	1-3 %
Organic pigments:	8-16 %

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 must be incorporated into the millbase before addition of pigments.

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