DISPERBYK-160

High Molecular Weight Wetting and Dispersing Additive for Solvent-Borne Systems

Composition

DISPERBYK-160	Solution of a high molecular weight block copolymer with pigment affinic groups

Typical Properties

	Amine value in mg KOH/g	Weight/ U.S. gal. (lb.gal.) at 68°F	Non-volatile matter in %	Flash Point in °F	Solvents
DISPERBYK-160	12	7.91	29.0	77	Xylene/Butyl-acetate 6/1

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

Recommended Levels

	% additive (as supplied) based upon			
	inorganic pigments	**titanium dioxide**	**organic pigments**	**carbon blacks**
DISPERBYK-160	10 - 15	5 - 6	30 - 90	70 - 140

The above recommended use levels are strongly dependent on pigment particle size. Optimal levels may be determined with a **ladder series** in the laboratory.

Incorporation and Processing Instructions

Wetting and dispersing additives should be added to the millbase. Only in this way can they achieve their full effectiveness.
The resin and solvents should be pre-mixed: then the additive added under agitation until uniformly dissolved. The pigments should be added following appropriate incorporation of the additive.
To prevent the formation of seeds during incorporation, before adding **DISPERBYK-160** to the resin, this additive should be diluted to 15% solids by using appropriate solvent(s) from the formula. **BYK-331** (see data sheet S200) should additionally be used in baking systems to improve leveling and to prevent Bénard cells.

Applications

	Industrial coatings	Automotive refinish coatings	Automotive OEM coatings	Coil coatings	Wood coatings	Pigment concentrates
DISPERBYK-160	☐	☐	☐	☐	☐	☐

☐ suitable

Special Features and Benefits

DISPERBYK-160	DISPERBYK-160 is the additive with the highest molecular weight in the group of polymeric wetting and dispersing additives for high quality solvent-borne coatings. In new paint formulations the usage of **DISPERBYK-161** (which has similar performance but is easier to handle) is recommended instead.

Function

This high molecular weight additive **deflocculates** pigments and provides steric stabilization. It provides a uniform electrical charge to pigment surfaces thus avoiding possible co-flocculation of pigments that are not equally charged. Due to the small particle sizes of the deflocculated pigments, higher gloss and color strength are achieved. Additionally, transparency of transparent pigments and hiding power of opaque pigments are increased. This product reduces viscosity, subsequently, leveling is improved and higher pigment loading is possible.

Special Note

The treatment of some organic pigments can negatively influence the efficiency of this wetting and dispersing additive. In such cases, tests with the untreated pigment of the same type may be successful.
When using these additives in **coil coatings**, possible interaction with the acid catalyst must be taken into consideration. Amine-blocked acids are less suitable than free acids or epoxy-blocked acids. These problems can be circumvented by using the **DISPERBYK-170 family** (see Data Sheet W201) instead.

Available Packaging

Drums and pails
Containers not completely emptied must be closed immediately after use!

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