DISPERBYK-112 DISPERBYK-116 DISPERBYK-140 DISPERBYK-142 DISPERBYK-145

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

Composition

DISPERBYK-112	Solution of an acrylate copolymer with basic pigment affinic groups
DISPERBYK-116	Acrylate copolymer with pigment affinic groups
DISPERBYK-140	Solution of an alkylammonium salt of an acidic polymer
DISPERBYK-142	Solution of a phosphoric ester salt of a high molecular weight copolymer with pigment affinic groups
DISPERBYK-145	Phosphoric acid ester salt of a high molekulare copolymer with pigment affinic groups

Typical Properties

	Amine value in mg KOH/g	Acid value in mg KOH/g	Weight/ U.S. gal. (lb.gal.) at 68°F	Non-volatile matter in %	Flash Point in °F	Solvents
DISPERBYK-112	36	–	8.50	60.0	117	Methoxypro-pylacetate
DISPERBYK-116	65	–	8.25	> 98.0	> 212	–
DISPERBYK-140	76	73	8.50	52.0	111	Methoxypro-pylacetate
DISPERBYK-142	43	46	8.57	60.0	118	Methoxypro-pylacetate
DISPERBYK-145	–	–	8.68	> 95.0	> 212	–

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-112	5 - 10	5 - 8	15 - 30	25 - 40
DISPERBYK-116	7.5 - 10	1.5 - 2	15 - 40	20 - 40
DISPERBYK-140	15 - 20	3 - 4	30 - 80	40 - 80
DISPERBYK-142	12 - 17	–	25 - 70	45 - 90
DISPERBYK-145	5 - 10	1 - 3	10 - 25	15 - 35

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

For optimum performance, the additive must be incorporated into the millbase before addition of the pigments.

Applications

	Architectural coatings	**Industrial coatings**	**Wood and furniture coatings**	**Automotive refinish coatings**	**Pigment concentrates**
DISPERBYK-112	☐	■	■	☐	■
DISPERBYK-116	■	☐	☐	☐	■
DISPERBYK-140	☐	■	■	■	■
DISPERBYK-142	☐	■	■	☐	■
DISPERBYK-145	■	☐	☐	–	■

■ **recommended** ☐ **suitable**

Function

These high molecular weight additives **deflocculate** pigments through steric stabilization of the pigments. They provide equal electrical charge to pigments and thus avoid additionally possible co-flocculation of pigments that are not equally charged. Due to the small particle sizes of the deflocculated pigments, high gloss is achieved and color strength improved. Additionally, transparency of transparent pigments and hiding power of opaque pigments are increased. These products reduce viscosity, subsequently, leveling is improved and higher pigment loading is possible.

Special Features and Benefits

DISPERBYK-112	DISPERBYK-112 is especially suitable to stabilize titanium dioxide. In combination with **DISPERBYK-140** or **DISPERBYK-142** it is as well suitable for the stabilization of colored pigments.
DISPERBYK-116	DISPERBYK-116 is especially designed for the production of pigment concentrates for high solids architectural coatings.
DISPERBYK-140	DISPERBYK-140 displays excellent compatibility with all common paint binders. As a special note, for nitrocellulose (NC) and thermoplastic acrylics (TPA), DISPERBYK-140 displays superb compatibility.
DISPERBYK-142	DISPERBYK-142 displays excellent compatibility with all common paint binders. As a special note, for epoxy systems, DISPERBYK-142 displays superb compatibility.
DISPERBYK-145	exhibits excellent compatibility with all commonly used paint binders. DISPERBYK-145 is especially suitable for use in low polarity systems such as alkyd, acrylic, TPA, and epoxy resins.

Special Note

DISPERBYK-140	In baking enamels, DISPERBYK-140 might have an influence on the paint adhesion on steel substrates. Before usage in white baking enamels, DISPERBYK-140 should be checked for possible yellowing influence. If yellowing occurs, **DISPERBYK-180** (see data sheet W208) is recommended to stabilize titanium dioxide.
DISPERBYK-142	In baking enamels, DISPERBYK-142 might have an influence on the paint adhesion on steel substrates. Before usage in white baking enamels, DISPERBYK-142 should be checked for possible yellowing influence. If yellowing occurs, **DISPERBYK-112** or **DISPERBYK-180** (see data sheet W211 and W208) are recommended to stabilize titanium dioxide.
DISPERBYK-145	In baking enamels, DISPERBYK-145 may have a negative influence on adhesion on steel substrates. Before using in white baking enamels, DISPERBYK-145 should be checked for possible yellowing.

Available Packaging

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

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