BYK
Additives & Instruments

Additive Selection Chart L-AG 1.8

Deflocculating Wetting and Dispersing Additives – Aqueous Systems

January 2015

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BYK Additives & Instruments

Deflocculating Wetting and Dispersing Additives Aqueous Systems

Resin-free Pigment Grinds

	DISPERBYK-190	BYK-154	DISPERBYK-191	DISPERBYK-192	DISPERBYK-194 N	DISPERBYK-199	DISPERBYK-2010	DISPERBYK-2012	DISPERBYK-2015
Pigment/ Filler type	Inorganic & organic, carbon black	Inorganic & fillers	Inorganic & organic, carbon black	Effect pigments	Inorganic & organic, carbon black	Inorganic & organic, carbon black	Inorganic & organic, carbon black	Inorganic & organic, **carbon black**	Inorganic & organic, carbon black
Decorative Coatings	■	For emulsion paints (PVK 35-85 %)	Optimized for emulsion paints, improvement of colorant acceptance in base paints	In combination with BYK-154 for TiO_2		For pigment concentrates and paints, for emulsion lacquers (PVC 16-35 %), excellent for all kinds of TiO_2			Good cost/performance ratio, more hydrophobic as compared to DISPERBYK-190
Industrial Coatings	■			For effect pigment stabilization	Optimized for 2-pack systems		Most hydrophobic product, least impact on water resistance	Allows use of co-solvent, thickener and surfactants in the grind	
Automotive Coatings	■			For effect pigment stabilization			For primer surfacers	Allows use of amine, co-solvent, thickener and surfactants in the grind	
Wood Coatings	■	For inorganic pigments and fillers in primers		For effect pigment stabilization		For PCs and paints with TiO_2	Least impact on water and stain resistance		First choice, for all pigments and matting agents for all systems, VOC-free
Printing Inks	■			For organic yellows (PY 13, PY 74, PY 83)					For organic pigments
Protective Coatings	■	For inorganic pigments and fillers in acrylic dispersions			For pigment concentrates in 2-pack systems	For pigment concentrates and paints, for water-based epoxy systems (amine/epoxy side)			
Coil Coatings	■			For effect pigment stabilization		Stabilization of TiO_2		Very universal, for inorganic & organic pigments	Good cost/performance ratio, more hydrophobic as compared to DISPERBYK-190
General Remarks	The Industry Standard		Can also be used in resin-containing grinds					Can also be used in resin-containing grinds	

■ recommended ▬ recommended for these special applications

Resin-containing Pigment Grinds

	DISPERBYK-180	DISPERBYK-184	DISPERBYK-185	DISPERBYK-191	DISPERBYK-193	DISPERBYK-2012
Pigment/ Filler type	Inorganic	Inorganic & organic, carbon black	Inorganic & organic, carbon black	Inorganic & organic, carbon black	Organic, carbon black	Inorganic & organic, **carbon black**
Binder type	Water-solubles resins and emulsions	Water-soluble resins	Water-soluble resins	Optimized for emulsions	With acrylic resins	First choice for water-soluble resins **and** emulsions
Decorative Coatings			■	■		
Industrial Coatings	■	■				■
Automotive Coatings	■	■				■
Printing Inks					■	
Coil Coatings	■					■
General Remarks			Less polar version of DISPERBYK-184 for universal colorants, for glycol-free colorants	Can also be used for resin-free pigment grinds	Typical binders for printing inks	Can also be used for resin-free pigment grinds

■ recommended

Wetting and Dispersing Additives to Wet and Stabilize Pigments and Prevent Flooding/Floating

	Grinding		Pigments		Binder systems									
					Emulsion paints		Emulsions			Hybridsystems	Water-soluble	Baking systems	2-pack PU	2-pack epoxy
	With resin	Resin-free	Inorganic, fillers	Organic, carbon black	High PVC 35-80 (flat)	Low PVC 16-35 (glossy)	Acrylate	PUR	Alkyd					
BYK-154		■	■		■	□								
DISPERBYK-180	■		■				□	□		■	■	■		
DISPERBYK-184	■		■	■						■	■	□	□	
DISPERBYK-185	■		■	■			□	□	■		■			
DISPERBYK-187*	■				■	■	■	■	■		□			
DISPERBYK-190		■	■	■		□	□	■	■	■	□	■	□	
DISPERBYK-191	■	■	■	■		□	■	□	■				□	
DISPERBYK-192		■	■**			□	■	■		■	□	■	■	
DISPERBYK-193	■		■	■			■							
DISPERBYK-194 N		■	■	■				□				□	■	■
DISPERBYK-199	■	■	■	■	□	■	■	□		□				□
DISPERBYK-2010		■	■	■			■	■	□	□		■	■	
DISPERBYK-2012	■	■	■	■		□	■	■	■	■	■	■	□	□
DISPERBYK-2015		■	■	■		□	□	■	■	■	□	■	□	

■ especially recommended □ recommended * to improve colorant acceptance ** effect pigments (aluminum, pearlescent)

Chemical Description and Technical Data

	Chemistry	Solids content	Active material (%)	Acid number (mg KOH/g)	Amine number (mg KOH/g)
BYK-154	Polyacrylate	42 % in Water	42	65	150
DISPERBYK-180	Phosphoric acid ester	81 %	100	94	94
DISPERBYK-184	Polyurethane	52 % in Dipropylene glycol monomethyl ether/propylene glycol 2/1	52	-	15
DISPERBYK-185	Polyurethane	>90 %	52	-	17
DISPERBYK-187	Polyacrylate	70 % in Propylene glycol/methoxypropanol 2/3	70	35	35
DISPERBYK-190	Polyacrylate	40 % in Water	40	10	-
DISPERBYK-191	Polyacrylate	98 %	80	30	20
DISPERBYK-192	Fatty acid	>98 %	100	-	-
DISPERBYK-193	Polyalkoxylate	40 % in Water	30	-	-
DISPERBYK-194 N	Polyacrylate	57 % in Water	48	75	-
DISPERBYK-199	Polyacrylate	40 % in Water	40	-	-
DISPERBYK-2010	CPT polyacrylate	40 % in Water	40	20	20
DISPERBYK-2012	CPT polyacrylate	40 % in Water	40	7	7
DISPERBYK-2015	CPT polyacrylate	40 % in Water	40	10	-

For more information about our additives and instruments, as well as our additive sample orders please visit:

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