



Product Guide L-G 6

Additives for Aqueous Coatings

Additives for Aqueous Coatings

Content

Wetting and Dispersing Additives	Page 3
Defoamers	Page 4
Rheology Additives	Page 5
Surface Additives: Silicones, Waxes and Others	Page 6–7
Adhesion Promoters	Page 7

Our complete range of additives for coatings can be found in the Product Guide L-G 1.

All additives mentioned in this document are APEO-free.

Wetting and Dispersing Additives

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

	Grinding		Pigments		Binder systems										
	With resin	Resin-free	Inorganic, fillers	Organic, carbon black	Emulsion paints			Emulsions			Hybrid systems	Water-soluble	Baking systems	2-pack PU	2-pack epoxy
					High PVC 35-80 (flat)	Low PVC 16-35 (glossy)	Acrylate	PUR	Alkyd						
ANTI-TERRA-250	■	■	■		■	□	□		□		■	■	□	■	
BYK-154		■	■		■	□									
DISPERBYK-180	■		■							■	■	■			
DISPERBYK-184	■		■	■						■	■	□	□		
DISPERBYK-187	■				■	■	■	■	■		□				
DISPERBYK-190		■	■	■		□	□	■	■	■	□	■	□		
DISPERBYK-191	■	■	■	■		□	■	□	■				□		
DISPERBYK-192		■	■			□	■	■		■	□	■	■		
DISPERBYK-193	■		■	■			■								
DISPERBYK-194 N		■	■	■				□				□	■	■	
DISPERBYK-199	■	■	■	■	□	■	■	□		□				□	
DISPERBYK-2010		■	■	■			■	■	□	□		■	■		
DISPERBYK-2012	■	■	■	■		□	■	■	■	■	■	■	□	□	
DISPERBYK-2013	■	■	■	■		□	■	■	■	■	■	■	□	□	
DISPERBYK-2015		■	■	■		□	□	■	■	■	□	■	□		
DISPERBYK-2055	□	■	■	■			■	■	□	■	■	■	■	□	
DISPERBYK-2060		■	■	□	Universal pigment pastes for architectural coatings, POS										
DISPERBYK-2061		■	■	■	Universal pigment pastes for architectural coatings, POS										
DISPERBYK-2062		■	■	■	Universal pigment pastes for architectural coatings, POS										
DISPERBYK-2080	□	■	■	□			■	■	■	■	□	■	■	■	
DISPERBYK-2081		■	■	□			■	■	□	■	□		□		

■ especially recommended □ recommended

Defoamers

Silicone Defoamers

	Usage in		Recommended for		
	Millbase	Letdown	Clears	Gloss and semigloss	Flats
BYK-017	■			■	□
BYK-018	■			■	□
BYK-019	■			■	□
BYK-021	■			■	□
BYK-022	■	□		■	□
BYK-023	■	□		■	□
BYK-024	□	■	■	■	□
BYK-025		■	■	■	□
BYK-028	□	■	■	■	□
BYK-044	■			Pigment concentrates	
BYK-081	■	■	■	■	■
BYK-093	■	■	■	■	■
BYK-094	■	■	■	■	□
BYK-1610	□	■		■	■
BYK-1611	□	■		■	■
BYK-1615	□	■		■	■
BYK-1617	□	■		■	■
BYK-1650	□	■		■	■
BYK-1719	■		■	□	
BYK-1723	■	□		■	□
BYK-1724	□	■	■	■	□
BYK-1730	■	□		□	□
BYK-1770	■	□	■	■	■
BYK-1780	■	■	■	■	□
BYK-1781	■	■	■	■	■
BYK-1785	□	■	■	■	□
BYK-1798		□		■	

■ especially recommended □ recommended

Polymer Defoamers, Silicone-free, free of mineral oil

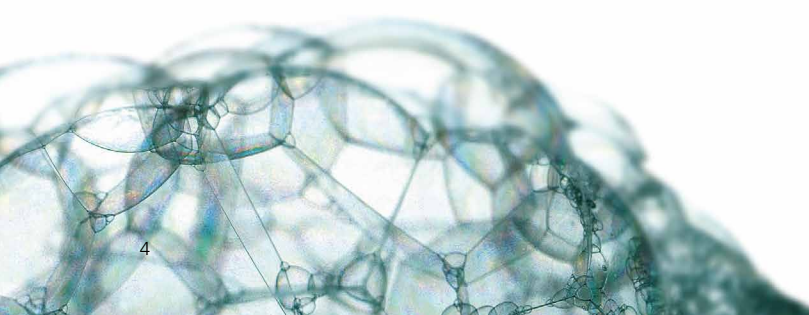
	Usage in		Recommended for		
	Millbase	Letdown	Clears	Gloss and semigloss	Flats
BYK-011	■	■	■	■	■
BYK-012	■	□	□	□	■
BYK-014	■	□	□	□	■
BYK-015	■	□	□		
BYK-016	■	■	■	■	■
BYK-1640	■	■		■	■
BYK-1710	■	■	□	□	■
BYK-1711	■			■	
BYK-1740	■	□	□	□	■

■ especially recommended □ recommended

Mineral-oil Defoamers, silicone-containing

	Recommended for emulsion paints and plasters	
	Gloss and semigloss	Flats
BYK-035	■	□
BYK-037	□	■
BYK-038	■	■
BYK-039	■	■

■ especially recommended □ recommended



Rheology Additives

Non-volatile matter (%)	Supply form/ Solvent	Incorporation			Viscosity increase at			Resulting flow behavior		Properties / Application areas
		Post-addition	With high shear	Premix in water	Low shear rates	Medium shear rates (KU)	High shear rates (ICI)	Pseudo-plastic	Thixotropic	

Modified Ureas

BYK-420	52	N-Methylpyrrolidone									Anti-settling, anti-sagging, elasticity, universal use
BYK-7420 ES	40	Amide ester	■	□		■				■	
BYK-D 420	45	Dimethylsulfoxide									

Polyurethane Thickeners/Associative-thickeners

BYK-425	50	Polypropylene glycol 600	■			■	□			■	VOC-free associative thickener (urea-modified polyurethane); viscosity increase already at low dosage; very universal use
OPTIFLO-H 3300 VF	17.5	Water	■				□	■		■	VOC-free associative thickener (HEAT), universal use
OPTIFLO-H 6500 VF'	20	Water	■			■	□			■	VOC-free associative thickener (HEUR), broad application in emulsion paints
OPTIFLO-H 7500 VF'	17.5	Water	■			■				■	VOC-free associative thickener (HEUR), especially for architectural paints and wood stains
OPTIFLO-H 7625 VF	20	Water	■			■	□				VOC-free associative thickener, APEO- and tin-free
OPTIFLO-L 1400	20	Water	■						■	■	Associative thickener (HEUR), especially for acrylate and styrene/acrylate emulsions, very hydrophobic
OPTIFLO-M 2600 VF	20	Water	■				■			■	VOC-free associative thickener (HEUR), especially for colloidal emulsions (VAE)
OPTIFLO-T 1000**	22.5	Water	■						■	■	VOC-free associative thickener (HEUR), very newtonian flow, highest ICI values
OPTIFLO-T 1010	22.5	Water	■						■	■	VOC-free associative thickener (HEUR), very newtonian flow behaviour, APEO- and tin-free
OPTIFLO-TVS VF	12.5	Water	■				□	■		■	Associative thickener (HEAT), especially for tinting paste systems

Acrylate Thickeners

OPTIFLO-HV 80	30	Water	■			■	□			■	Associative thickener (HASE)
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Synthetic Phyllosilicates

LAPONITE-EP	100	Powder				■		■		□	■	Organic-modified product with increased effectivity at medium shear
LAPONITE-RD	100	Powder				■	■			□	■	Standard recommendation for universal use
LAPONITE-RDS	100	Powder				■	■			□	■	Easier to disperse than LAPONITE-RD
LAPONITE-S 482	100	Powder		□		■	■			□	■	For individual premix production; for direct use; for high-solid slurries
LAPONITE-SL 25	25	Water	■			■				□	■	Ready-to-use dispersion with high solids

Activated Phyllosilicates

OPTIGEL-CK	100	Powder		■	□		■				■	Standard recommendation for universal use
OPTIGEL-CG	100	Powder		■	□		■				■	For cost-optimized highly filled systems without special requirements for whiteness
OPTIGEL-CMO	100	Powder		■	□		■				■	Especially for highly filled thick-layer systems
OPTIGEL-LX	100	Powder		■			■		■		□	For cosolvent-free emulsion paints
OPTIGEL-W 724	100	Powder		■			■		■		□	Organic-modified, high water-resistance (e.g. heavy duty coatings)
OPTIGEL-WA	100	Powder		■			■		■		□	Organic-modified, to increase in-can viscosity
OPTIGEL-WM	100	Powder		■			■		■		□	Organic-modified, increases water retention and thus the open-time
OPTIGEL-WX	100	Powder		■	□		■		■		□	Organic-modified, for universal use; excellent anti-settling

■ especially recommended □ recommended

HASE = Hydrophobic modified Alkali-Swellable Emulsion

HEUR = Hydrophobic Ethoxylated Urethane

Only available: *NAFTA and Europe, **USA and Europe

HEAT = Hydrophobic Ethoxylated Aminoplast Technology

Surface Additives: Silicones, Waxes and Others

Silicone Additives to Reduce Surface Tension

	Surface tension reduction		Substrate wetting	Surface slip	Leveling	Reactive group
	Strong	Medium				
BYK-302		■	□	□	□	
BYK-307	■		■	■		
BYK-326		■	□	□	■	
BYK-331		■	□	□	□	
BYK-332		■	□	□	■	
BYK-333	■		■	■		
BYK-342		■	■	□	□	
BYK-345	■		■		□	
BYK-346	■		■		□	
BYK-347	■		■		□	
BYK-348	■		■		□	
BYK-349	■		■		□	
BYK-375	■		■	■		Hydroxyl
BYK-378	■		■	■	□	
BYK-3455	■		■		□	
BYK-3760	■		■	■	□	
BYK-SILCLEAN 3720	□		Improved cleanability (easy-clean)			Hydroxyl

■ especially recommended □ recommended

Wax Additives, Aqueous Dispersions and Emulsions

	Melting point (Wax) °C	Scratch resistance	Abrasion resistance	Surface slip	Orientation of effect pigments	Water repellency, anti-blocking	Gloss reduction	Soft-feel effect
AQUACER 497	60			□		■		
AQUACER 501	130	■						
AQUACER 507	130			□	□			
AQUACER 513	135	■	■					
AQUACER 517	120	■	■					
AQUACER 526	105				■			
AQUACER 527	105				■			
AQUACER 530	130	■	■	■				
AQUACER 531	130	□	■	□				
AQUACER 532	130	■	■	■				
AQUACER 533	95			■		□		
AQUACER 537	110			□		■		
AQUACER 539	90			■		■		
AQUACER 541	80	■		■				
AQUACER 552	130	■	■					
AQUACER 561	65			■		■		
AQUACER 565	85	■	■	■				
AQUACER 593	160			Anti-Slip				
AQUACER 595	140			Anti-Slip				
AQUACER 1013	135	■	■					
AQUACER 1039	90			■		■		
AQUACER 1547	125	■						
AQUACER 2650	85			■		■		
AQUAMAT 208	135	■	□				□	■
AQUAMAT 263	130	■				□	□	□
AQUAMAT 272	125	■	■	■		□	■	■
AQUATIX 8421	105				■			
HORDAMER PE 03	95	■	■					
HORDAMER PE 35	125	■	■	■				

■ especially recommended □ recommended

Wax Additives, Micronized

	Melting point (Wax) °C	Scratch resistance	Abrasion resistance	Gloss reduction	Texture	Soft-feel effect
CERAFLOUR 913	160			■	very fine	■
CERAFLOUR 914	160				very fine	■
CERAFLOUR 915	160				fine	
CERAFLOUR 916	135		■		medium	
CERAFLOUR 917	135	■			medium/fine	□
CERAFLOUR 920	-	■		■	coarse	■
CERAFLOUR 925	115	■	■	■		
CERAFLOUR 927	125	■	■	■		
CERAFLOUR 929	115	■	■	■		
CERAFLOUR 1000	175	■	■	■		■

■ especially recommended □ recommended

Crosslinkable Surface Additives (Acrylic-functional)

	Composition	Reactive diluent	Properties
BYK-UV 3500	Polyethermodified polydimethylsiloxane	-	High surface slip
BYK-UV 3505	Modified polydimethylsiloxane	TPGDA	High surface slip
BYK-UV 3530	Polyethermodified siloxane	-	
BYK-UV 3535	Modified polyether	-	Anti-slip effect, silicone-free

Other Surface Additives

	Type	Usage
BYK-381	Acrylic copolymer	Improves leveling
BYK-3400	Combination of interface-active substances	Improves substrate wetting and leveling
BYK-3410	Alcohol alkoxylates	Reduction of dynamic surface tension, better wetting of low polar substrates
BYK-3440	Acrylic copolymer	Substrate wetting, fluoro-modified
BYK-3441	Acrylic copolymer	Improves leveling, fluoro-modified polyacrylate
BYK-3560	Polyether macromer-modified polyacrylate	Increases the surface energy of the cured paint film
BYK-3565	Silicone and polyether macromer-modified polyacrylate	Increases the surface energy of the cured paint film
BYK-DYNWET 800 N	Alcohol alkoxylates	Reduction of dynamic surface tension, improved substrate wetting
BYKETOL-AQ	Low molecular weight surface active polymers	Improved leveling, prevents boiling marks, extends open time
BYKETOL-PC	Modified urea	Prevents drying-out of aqueous universal colorants, increases the open time
BYKETOL-WS	Low molecular weight surface active polymers	Improved leveling, prevents boiling marks, extends open time

Adhesion Promoters

	Improved adhesion on	Recommended for
BYK-4500	Aged paint work (pigmented)	Emulsion paints, alkyd emulsions
BYK-4509	Steel, galvanized steel, aluminum, glass	Baking and 2-pack systems
BYK-4513	Metals	2-pack epoxies



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

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