

## PRODUCT GUIDE

# **ADDITIVES FOR SOLVENT-BORNE AND HIGH-SOLID LEATHER FINISHES AND COATED FABRICS**

**AIR RELEASE ADDITIVES** 

WETTING AND **DISPERSING ADDITIVES** 

**WAX ADDITIVES** 

**RHEOLOGY ADDITIVES** 

## Wet process – coagulation (1/2)

### **Pigment stabilization in DMF**

Product	Inorganic pigments	Organic pigments	Carbon blacks	Faster dissolution of PU granules	Reduced flooding/floating (post-additive)	Active substance/ non-volatile matter (%)*1	
BYK-L 9540			•	•		60	Alkanolamine
BYK-P 104 S	•	•	•		•	50	Solution of a low molecular weight, unsaturated polycarboxylic acid polymer and a polysiloxane copolymer
DISPERBYK-108	•	0				>97	Hydroxy-functional carboxylic acid ester with pigment-affinic groups
DISPERBYK-130			•			51	Solution of polyamine amides of unsaturated polycarboxylic acids
DISPERBYK-185	0	•				>90	Solution of modified polyurethane

Especially recommended
 Recommended

#### Pore control

Product	Long tubelike pores	Large pores: high coagulation speed	Universal: better leveling, anti-cratering, and reduced water marks	Small pores: slow coagulation speed	Active substance/ non-volatile matter (%)*2	Chemistry
BYK-L 9520	•				87.5	Polyether-modified polysiloxane
BYK-L 9525		•				Polyether-modified polysiloxane
BYK-L 9560			•			Polyether-modified polysiloxane
BYK-L 9565			0		100	Polyether-modified polydimethylsiloxane, hydroxy-functional
BYK-L 9568			0		>97	Polyether-modified polydimethylsiloxane, hydroxy-functional
VISCOBYK-4015				•		Medium-volatile to highly volatile, aliphatic hydrocarbons with air release component

<sup>●</sup> Especially recommended ○ Recommended

<sup>\*1</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

<sup>\*2</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

## Wet process – coagulation (2/2)

#### Air release

Product	Easier deaeration under vacuum	Better self-deaeration after application	Active substance/ non-volatile matter (%)*3	·
BYK-070	•	•	9	Solution of foam-destroying polymers and polysiloxanes
BYK-1788	•	0	>98	Combination of surface-active substances
BYK-L 9505	•	0	89.5	Solution of a polyalkylene ether

<sup>●</sup> Especially recommended ○ Recommended

#### **Rheology control**

Product		Pseudoplastic flow behavior		Active substance/ non-volatile matter (%)*4	
RHEOBYK	-430		•	30	Solution of a high molecular weight, urea-modified, medium-polarity polyamide

Especially recommended
 Recommended

#### **PU-resin modification**

Product		Softening	Improved pigment acc	eptance	Active substance/	Chemistry		
			Carbon blacks	Organic pigments	non-volatile matter (%)*5			
BYK-L 9540				•	60	Alkanolamine		
BYK-L 9560		0				Polyether-modified polydimethylsiloxane		
BYK-L 9565		0			100	Polyether-modified polydimethylsiloxane, hydroxy-functional		
BYK-L 9568		•			>97	Polyether-modified polydimethylsiloxane, hydroxy-functional		
DISPERBYK-1	30		•		51	Solution of polyamine amides of unsaturated polycarboxylic acids		

<sup>\*3</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

<sup>\*4</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

<sup>\*5</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

## Dry process – coating (1/4)

#### **Pigment stabilization**

Product	Inorganic pigments	Organic pigments	Carbon blacks	Matting agents	Faster dissolution of PU granules	Reduced flooding/floating (post-additive)	For high-solid systems	Active substance/ non-volatile matter (%)*6	Chemistry			
BYK-9076	0	0	•					96	Alkylammonium salt of a high molecular weight copolymer			
BYK-9077	0	0	•		100 Polyglycol polyester-modified polyalk							
BYK-L 9540			•		•			60	Alkanolamine			
BYK-P 104 S						•		50	Solution of a low molecular weight, unsaturated polycarboxylic acid polymer and a polysiloxane copolymer			
DISPERBYK-108	•	0						100	Hydroxy-functional carboxylic acid ester with pigment-affinic groups			
DISPERBYK-185*7	0	•					-	>90	Solution of modified polyurethane			
DISPERBYK-2014*7		•	•					100	Copolymer with pigment-affinic groups			
DISPERBYK-2055*7	•	•	•					100	Modified polyacrylate			
DISPERBYK-2155*8	0	0	•			• 100 Polyglycol polyester-		Polyglycol polyester-modified polyalkylene imine				
DISPERBYK-2157*9	•	•	•			•	•	100	Block copolymer with aminic, pigment-affinic groups			
DISPERBYK-2159				•				60	Solution of polyester-modified polyalkylene imine			
DISPERBYK-2163*8	0	0	0			•		45	Solution of modified polyurethane			

<sup>●</sup> Especially recommended ○ Recommended

<sup>\*6</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

<sup>\*7</sup> For aqueous and solvent-borne systems

<sup>\*8</sup> Also available as (organo) tin-free variant ("TF"). Information on tin-free variants can be found in the brochure B-AN 1 at www.byk.com/en/service/downloads/technical-brochures.

<sup>\*9</sup> From bio-based raw materials

## Dry process – coating (2/4)

#### Air release

Product	Easier deaeration under vacuum	Better self-deaeration after application	Active substance/ non-volatile matter (%)*10			
BYK-039*11	•	•				
BYK-070	•	•	9			
BYK-1788	•	•	>98	Combination of surface-active substances		
BYK-1794	•	•	100	Polyolefin copolymer		
BYK-L 9505	•	0	89.5	Solution of a polyalkylene ether		

<sup>●</sup> Especially recommended ○ Recommended

### **Rheology control**

Product	Pseudoplastic flow behavior	Thixotropic flow behavior	Viscosity reduction in high-solid PU	Active substance/ non-volatile matter (%)*12	
RHEOBYK-430	•			30	Solution of a high molecular weight, urea-modified, medium-polarity polyamide
RHEOBYK-7410 ET		•		40	Solution of a modified urea
VISCOBYK-4015			•		Medium-volatile to highly volatile, aliphatic hydrocarbons with air release component

<sup>■</sup> Especially recommended ○ Recommended

<sup>\*&</sup>lt;sup>10</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

<sup>\*11</sup> Only in high-solid PU

<sup>\*12</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

## Dry process – coating (3/4)

### **Surface properties (1/2)**

Product	Pull-up effect	Anti-blocking	Matting	Effect pigment orientation	Wetting of (non-) woven, anti-pinhole effect	Wetting of release paper	Slip, anti-blocking, leveling	Water/oil repellency	Easy-to-clean effect	Scratch/abrasion resistance	Soft-touch	For high-solid systems	For PU polymerization processes	Active substance/ non-volatile matter (%)*13	Chemistry	Melting point (wax component) in °C
BYK-307						0	•							100	Polyether-modified polydimethylsiloxane	
BYK-325 N						0	•	0						52	Solution of a polyether-modified polymethylalkylsiloxane	
BYK-326						0	•	0						>96	Polyether-modified polymethylalkylsiloxane	
BYK-333						0	•	0						100	Polyether-modified polydimethylsiloxane	
BYK-3760					•	0	•	0		•		•		>99	Polyether-modified polydimethylsiloxane	
BYK-L 9560					0		•								Polyether-modified polydimethylsiloxane	
BYK-L 9565					•	•	•			0		•	•	100	Polyether-modified polydimethylsiloxane, hydroxy-functional	
BYK-L 9568					0	•	0			0	•	•	•	>97	Polyether-modified polydimethylsiloxane, hydroxy-functional	
BYK-SILCLEAN 3700*14								0	•					25	Solution of a silicone-modified polyacrylate (OH-functional)	
CERAFLOUR 920			•							0				100	Urea-aldehyde resin	
CERAFLOUR 929 N		0	•							•	0			100	Micronized, modified PE wax	115
CERAFLOUR 950	•	•												100	Micronized, modified HD polyethylene wax	135
CERAFLOUR 981 R			•							•				100	Micronized PTFE	
CERAFLOUR 988*15	•													100	Micronized, amide-modified polyethylene wax	140
CERAFLOUR 993*16	•													100	Micronized amide wax	145
CERAFLOUR 994	•			0										100	Ultra-fine micronized amide wax	145

<sup>●</sup> Especially recommended ○ Recommended

<sup>\*13</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.

<sup>\*&</sup>lt;sup>14</sup> Hydroxy-functional \*<sup>15</sup> For aqueous and solvent-borne systems \*<sup>16</sup> From bio-based raw materials

## Dry process – coating (4/4)

### **Surface properties (2/2)**

Product	Pull-up effect	Anti-blocking	Matting	Effect pigment orientation	Wetting of (non-) woven, anti-pinhole effect	Wetting of release paper	Slip, anti-blocking, leveling	Water/oil repellency	Easy-to-clean effect	Scratch/abrasion resistance	Soft-touch	For high-solid systems	For PU polymerization processes	Active substance/ non-volatile matter (%)*13	Chemistry	Melting point (wax component) in °C
CERAFLOUR 1000*16		0												100	Polyester	175
CERAMAT 248		•	•								0			20	Highly concentrated dispersion of a polyethylene wax	110
CERATIX 8561				•										4.7	Ethylene vinyl acetate copolymer wax dispersion (EVA)	105

<sup>●</sup> Especially recommended ○ Recommended

<sup>\*13</sup> The active substance content does not necessarily correspond to the non-volatile matter content. Depending on the composition of the product and the analytical method of determination, the non-volatile matter content can be higher or lower. The active substance content serves as the basis for calculating the dosage.



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