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2K-Polyaspartic floor coat self-leveling, solvent-free reduced sedimentation, high hiding power

Basis Polyaspartic (polyaspartic ester / isocyanate HDI)

			Kontrolle EWO	SILLITIN Z 89	SILFIT Z 91	AKTIFIT AM
	L00053.2		[1]	[3]	[8]	[9]
Component A	Desmophen NH 1423 LF	(1)	16.50	16.50	16.50	16.50
Grinding	Sylosiv A4	(2)	1.09	1.09	1.09	1.09
	Byk-327	(3)	0.34	0.34	0.34	0.34
	Disperbyk 2205	(3)	0.17	0.17	0.17	0.17
	Kronos 2360	(4)	3.44	3.44	3.44	3.44
	EWO	(5)	25.16			
	SILLITIN Z 89	(6)		14.87		
	SILFIT Z 91	(6)			14.87	
	AKTIFIT AM	(6)				14.87
Let Down	Desmophen NH 1423 LF	(1)	8.21	8.21	8.21	8.21
	Desmophen NH 1723 LF	(1)	10.59	10.59	10.59	10.59
	CSTIColor NH White 6	(7)	3.35	3.35	3.35	3.35
	Total parts by weight component A		68.85	58.56	58.56	58.56
Component B	Desmodur ultra N 31100	(1)	31.15	31.15	31.15	31.15
	Total parts by weight component A +B		100.00	89.71	89.71	89.71

Crosslinking ratio NCO/OH approx. 110 %

Recommendation	[3]	SILLITIN Z 89	- cost-effect
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cost-effective standard productsignificantly improved storage stability and reduced sedimentation

- high hiding power

- for even better dispersibility: SILLITIN Z 89 PURISS

[8] SILFIT Z 91 like SILLITIN Z 89, but additionally

- higher color neutrality

[9] AKTIFIT AM like SILFIT Z 91, but additionally

- best abrasion resistance



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Mixing Component A

- dissolver with toothed disc
- prepare Desmophen und additives
- stir in titanium dioxide and filler
- disperse 15 min @ 11 m/s
- target temperature >60 °C (necessary for direct incorporation of Disperbyk 2205)
- Let Down: add remaining components
- stir 5 min @ 4.2 m/s
- allow component A to mature for at least 24 h before use

Processing A+B

- speedmixer
- 60 s @ 1000 rpm + 120 s @ 2000 rpm

	L00053.2		Kontrolle EWO [1]	SILLITIN Z 89 [3]	SILFIT Z 91 [8]	AKTIFIT AM [9]		
Properties	Storage stability component A, after 4 weeks @ room temperature							
	Clear supernatant	%	49	2	0	0		
	Sediment	%	14	2	5	5		
	Sediment properties		hard	soft	soft	very soft		
	Viscosity component A							
	@ 0.1 s ⁻¹	Pa⋅s	1.8	3.1	2.6	3.1		
	@ 1000 s ⁻¹	Pa⋅s	1.4	1.8	1.9	2.0		
	Viscosity component A+B							
	@ 0,1 s ⁻¹	Pa⋅s	4.2	8.8	6.8	5.7		
	@ 1000 s ⁻¹	Pa⋅s	2.8	4.2	3.6	3.6		
	Processability							
	Leveling		good	good	good	good		
	Deaeration		good	good	good	good		
	Color CIELab, d/8, 300 µm dry film thickness (dft)							
	L*	-	97.2	95.1	95.5	95.7		
	a*	-	-0.8	-0.4	-0.7	-0.7		
	b*	-	1.4	4.8	1.8	1.8		
	dft for contrast ratio 98 %	μm	308	254	257	260		
	Gloss 20°	GU	86	87	86	87		
	Gloss 60°	GU	93	94	94	93		
	Haze	HU	42	23	29	26		
	Abrasion resistance							
	S42 (5,4 N, 100 U)	mg	95	70	77	68		
	CS17 (1 kg, 1000 U)	mg	37	55	36	31		



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Suppliers

- (1) Covestro
- (2) Grace
- (3) Byk Chemie
- (4) Kronos International
- (5) Sachtleben Minerals
- (6) HOFFMANN MINERAL
- (7) CSC Jäklechemie

More information on this topic:

Neuburg Siliceous Earth - Floor coating based on 2K polyaspartic

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