



Industrial coating

Powder coating, for outdoor coatings, anthracite gray (RAL 7016)

semigloss (standard in facade sector)

high corrosion resistance

Basis Polyester / Primid

L 00003.1 [8]

Crylcoat 2618-3	(1)	75.00
Primid XL 552	(2)	3.60
Ceraflour 991	(3)	0.30
Pigments for RAL 7016		6.94
Byk-3900 P	(3)	1.00
Benzoin		0.40
SILLITIN V 88	(4)	12.76
Total % by weight		100.00

Recommendation Instead of the common used aluminum hydroxide, SILLITIN V 88 offers a distinctly improved flexibility (direct impact after 1 hour) and a significantly reduced delamination after acetic salt spray test.

Preparation

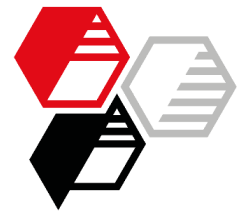
- Extruder: Coperion ZSK 18, heating zone 50/80/120/120/120°C, 800 min⁻¹
- Sieving: Retsch AS 200, sieve 125 µm, plus ultrasonic
- Milling: Alpine mill at approx. 17000 min⁻¹
- Application: automatic powder gun, 80 kV (Corona)
- Substrates: aluminum chromated (AL 48) and steel (R 48)
- Curing: 10 min PMT 180°C
The polyester resin requires a curing time of 10 min at a peak metal temperature of 180°C. Despite the filler addition, neither the curing time nor the curing temperature had to be increased.
- Dry film thickness 70-80 µm

Suppliers

- (1) Allnex
- (2) EMS-Griltech
- (3) Byk Chemie
- (4) HOFFMANN MINERAL

More information on this topic:

[Polyester/Primid for Outdoor Coatings RAL 7016](#)



Optical properties	<u>Substrate: aluminum chromated</u>			
	Color L*			34.6
	Color a*			-1.4
	Color b*			-2.9
	Gloss 60°		GU	80
	Gloss 20°		GU	41
	Haze		HU	415
Mechanical properties	<u>Substrate: steel</u>			
	Mandrel bending test	DIN EN ISO 6860	mm	0
	Cross-cut test (2 mm)	DIN EN ISO 2409		0
	Cupping test	DIN EN ISO 1520	mm	>10
	Reverse impact test	ASTM D 2794-93		
	1h after baking (2 lbs, Ø 15.9 mm)		inch-	30
	3d after baking (2 lbs, Ø 12.7 mm)		pounds	0
	Direct impact test	ASTM D 2794-93		
	1h after baking (with 80 inch lbs, Ø 15.9 mm)		cracks	no
3d after baking (with 80 inch lbs, Ø 12.7 mm)			yes	
Resistances	<u>Substrate: aluminum chromated</u>			
	Sodium hydroxide test (2N) according to GSB International			
	ΔE			0.1
	Water spot resistance according to GSB International (deionized water, 4h @ 58°C)			
	ΔL*			0.1
	Humidity test, 1000h DIN EN ISO 6270-2 CH			
	ΔE			0.4
	Acetic salt spray test, 1000h DIN EN ISO 9227 AASS			
	Delamination at scribe	DIN EN ISO 4628-8	mm	1.5
	Degree of blistering	DIN EN ISO 4628-2		0 (S0)
	Artificial weathering QUV B, 313 nm, 300h			
	Remaining gloss 60°		%	79
	Outdoor exposure Florida, exposed 45° south			
Remaining gloss 60° (after 280 MJ/m ²)		%	96	
Remaining gloss 60° (after 420 MJ/m ²)		%	45	

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