

**Industrial coating**

**Coil coating topcoat, solvent-based, white, glossy  
good mechanical properties and resistance to weathering**

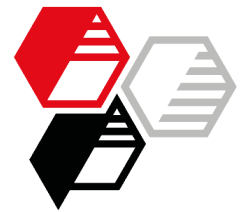
**Basis** Polyester

		Substitution of 20 % titanium dioxide		
		Control	by equal volume	by equal weight
T 24401.1		[1]	[18]	[19]
Dynapol LH 538-02	(1)	43.2	43.2	43.2
Solvesso 150	(2)	6.0	6.0	6.0
Aerosil 200	(1)	0.2	0.2	0.2
Kronos 2310	(3)	28.1	22.5	22.5
AKTIFIT AM	(4)	---	3.7	5.6
Cymel 303 LF	(5)	7.0	7.0	7.0
Cymel 327	(5)	1.5	1.5	1.5
Nacure 2500	(6)	0.7	0.7	0.7
Resiflow FL 2	(7)	0.5	0.5	0.5
Byk-057	(8)	0.5	0.5	0.5
Butyl diglycol acetate	(9)	12.3	12.3	12.3
Total parts by weight		100.0	98.1	100.0

- Mixing**
- Dynapol and Solvesso were charged
  - Aerosil, Kronos and AKTIFIT AM were stirred in at 500 rpm
  - grinding by dissolver with adapted bead mill (9 min, 6.3 m/s, cooled)
  - the remaining components were premixed with a propeller stirrer, added after the grinding and incorporated homogeneously (1 min, 6,3 m/s)

**Application** The formulations were applied to galvanized steel plates (0.55 mm, pretreated chromate-free, Bonder 1303, with PU standard primer 5 µm) and stoved in a continuous furnace with circulating air (320°C, dwell time 38 s, PMT 241°C).

Technical Data					
		µm	< 10	< 10	< 10
Fineness of grind					
PVC	%		17.5	17.5	19.1
Solids content (by volume)	%		53.7	53.7	54.1



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<b>Properties</b>	Dry film thickness	µm	17	16	17	
	Color d/8° L*		94.5	93.6	93.8	
	Color d/8° a*		-1.3	-1.3	-1.3	
	Color d/8° b*		-1.3	-1.3	-1.1	
	Haze	HU	205	367	384	
	Gloss 20°	DIN EN ISO 2813	GU	71	41	28
	Gloss 60°	DIN EN ISO 2813	GU	92	81	73
	Cross-cut test (1 mm)	DIN EN ISO 2409		0	0	0
	Pendulum hardness	DIN EN ISO 1522	s	167	175	174
	Impact test	DIN EN ISO 6272-1	kg-cm	55	55	50
	Cupping test	DIN EN ISO 1520	mm	7.9	7.9	7.9
	Scratch resistance Corrocutter		N	18	20	20
	<i>(force applied to scratch the coating down to the substrate)</i>					
	MEK resistance		double strokes	> 200	> 200	> 200
	<b>QUV-B 313 nm, 400 h (cycle: 4 h UV 60°C + 4 h condensation 50°C)</b>					
	Gloss 20° before weathering		GU	71	41	28
Gloss 20° after weathering		GU	33	22	16	
<i>remaining gloss 20°</i>		%	47	54	57	
Gloss 60° before weathering		GU	94	82	74	
Gloss 60° after weathering		GU	71	58	52	
<i>remaining gloss 60°</i>		%	76	71	70	
Chalking (rel.)		%	1	1	1	
Δ E		%	0.7	0.9	0.7	
<b>Suppliers</b>	(1)	Evonik Industries				
	(2)	ExxonMobil				
	(3)	Kronos International				
	(4)	HOFFMANN MINERAL				
	(5)	Allnex				
	(6)	King Industries (Worlée-Chemie)				
	(7)	Worlée-Chemie				
	(8)	Byk Chemie				
	(9)	BASF				

**More information on this topic:**

[Neuburg Siliceous Earth in a White Polyester-based Coil Coating Top Coat](#)

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