Series 18 Architectural Application – *Flex*CURE

A POWDER COATING FOR METAL FACADES AND STEEL CONSTRUCTION
BASIS: POLYESTER

Typical application

- metal facades and profiles
- doors, gates, window frames, fences
- winter garden
- steel construction

Product details

Standard Packaging	In original boxes of 20 kg (exceptional cases: 18 kg) each as well as in Minipacks of 2.5 kg each
Specific Gravity (ISO 8130-2)	1.2-1.7 g/cm³ depending on pigmentation
Theoretical Coverage	at 60 µm film thickness: 9.8-13.8 m²/kg depending on specific gravity (please see also Information Sheet no. 1072 - latest edition)
Storage Stability	Use before: see printed date on product label; under dry conditions at no more than 25 °C, avoid direct and extended heat exposure

(The shelf life of custom made blanket orders or other stock agreements which by their nature are stored over longer periods is determined by the original production date.)

Features

- highly weather resistant
- very good flow properties
- very good mechanical properties
- good storage stability
- batch consistency of RAL colors acc. to VdL guidance no. 10

Finish

Finish	Gloss
smooth *matte*	20 – 35*
smooth *semi gloss*	60 – 77*
smooth *glossy*	–
fine texture *matte*	–

* Gloss level acc. to ISO 2813/60° angle (doesn't apply to metallic effect powder coatings). The measured gloss level of effect powder coatings can diverge from the details given in this product datasheet. The creation of tolerance samples is urgently recommended)

Pre-treatments

The following table reflects the common methods of pretreatment with regards to various substrates and applications. In selecting the proper type of pretreatment please observe the suitability of the type of powder coating for a desired application according to the guidelines of this Product Data Sheet.

	Alu-minum			Steel			Galvanized Steel		
[1) 2)] Chromating	o	o	o				o	o	o
[2)] Pre-Anodizing	o	o	o						
[2)] Chrome free	o	o	o				o	o	o
Iron Phosphating				o					
Zinc Phosphating				o	o		o	o	o
Blasting				o	o				
[3)] Sweeping							o	o	o
Degreasing	o			o			o		
	I	E	A	I	E[4)]	A[5)]	I	E	A[5)]

Application: I = interior; E = exterior; A = architecturall

1) acc.to DIN 12487
2) acc. to GSB and QUALICOAT quality and test regulations.
3) only for zinc coated parts > 45 µm
4) for a two-coat process TIGER Series 270 / 271 / 272 / 273
5) for a two-coat process acc. to GSB TIGER Series 270 / 271

Application | Processing

Standard stock item: Corona
Custom order product: Corona; Tribostatic* available upon inquiry
* Suitability for tribo processing must be verified prior to actual application. Please consult with the relevant application guidelines for metallic effect powder coatings, latest edition.

Material approvals for colors and metallic effects*

Quality labels for the piecework coating of buildingcomponents

Finish	GSB Florida 1	QUALICOAT Class 1
smooth *matte*	174 q	P-2172
smooth *semi gloss*	174 t	
smooth *glossy*	–	–
fine texture *matte*	–	–
Fire rating		
acc. to EN 13501-1:2018 with result A2-s1, d0**		

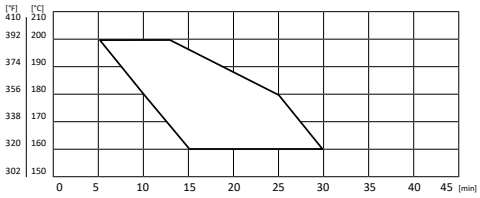
* exemptions prevail
** substrate: aluminium; max. film thickness: 115 µm

Product data sheet

Cure parameters

(Substrate temperature versus curing time)

smooth *matte* | smooth *semigloss*



substrate temp.	min. curing time	max. curing time
200°C	5 minutes	13 minutes
180°C	10 minutes	25 minutes
160°C	15 minutes	30 minutes

Please observe cure parameters closely since mechanical properties will develop before full cross-linking!
The maximum curing temperature must not be exceeded

Test results

Checked under laboratory conditions on a pretreated aluminum test panel which is 0.7 mm thick. Actual product performance may vary due to product specific properties such as gloss, color, effect and finish as well as application related and environmental influences.

test method	test	**Series 18** smooth *matte* smooth *semigloss*
ISO 2360	**film thickness recommended**	60-80 µm
ISO 2813	**gloss - 60°**	*matte* 20-35 | *semigloss* 60-77
ISO 2409	**cross cut test/adhesion** 1 mm cutting distance	0
ISO 1519	**mandrel bending test** cracking of coating	≤ 5 mm not permitted
ISO 2815	**impression hardness**	≥ 80
ISO 1520	**cupping test** cracking of coating	≥ 5 mm not permitted
ASTM D 2794	**ball impact test** cracking of coating	20 Inch/pound not permitted
ISO 6270-1	**determination of resistance to humidity** 1000 h	delamination around scribe max. 1 mm
ISO 9227	**salt spray test** 1000 h	delamination around scribe max. 1 mm
acc. to EN ISO 16474-3	**accelerated weathering** UV-B (313 nm) 300 h *	residual gloss ≥ 50 %
EN ISO 16474-2	**accelerated weathering test** xenon-arc radiation 1000 h **	residual gloss ≥ 50 %
EN ISO 2810	**natural weathering** in Florida 12 month	residual gloss ≥ 50 %

* acc. to GSB AL 631 (www.gsb-international.de) ** acc. to QUALICOAT specifications (www.qualicoat.net)

Series 18

Processing instructions

The guidelines for application (datasheet 1213) and processing guidelines for powder coatings with metallic effect No. 36 and processing guidelines for powder coatings with metallic effect for application categories A-D No. 44 must be strictly observed.
The Product Data Sheets, Technical Information Sheets and the guidelines for application each in their latest version, are available for download on www.tiger-coatings.com.

Disclaimer

Our verbal and written recommendations for the use of our products are based upon experience and in accordance with present technological standards. These are given in order to support the buyer or user. They are non-committal and do not create any additional commitments to the purchase agreement. They do not release the buyer from verifying the suitability of our products for the intended application. We warrant that our products are free of flaws and defects to the extent as stipulated in our Terms of Delivery and Payment.
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Series 18

certified according to
EN ISO 9001 / 14001
IATF 16949

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