

Series 18 Architectural Application – FlexCURE

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 <i>matte</i>	20 – 35*
smooth <i>semi gloss</i>	60 – 77*
smooth <i>glossy</i>	–
fine texture <i>matte</i>	–

* 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	○	○	○				○	○	○
²⁾ Pre-Anodizing	○	○	○						
²⁾ Chrome free	○	○	○				○	○	○
Iron Phosphating				○					
Zinc Phosphating				○	○		○	○	○
Blasting				○	○				
³⁾ Sweeping							○	○	○
Degreasing	○			○			○		
	I	E	A	I	E ⁴⁾	A ⁵⁾	I	E	A ⁵⁾

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

- 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 building components

Finish	GSB Florida 1	QUALI-COAT Class 1
smooth <i>matte</i>	174 q	P-2172
smooth <i>semi gloss</i>	174 t	P-2052
smooth <i>glossy</i>	–	–
fine texture <i>matte</i>	–	–
Fire rating		
acc. to EN 13501-1:2018 with result A2-s1, d0**		

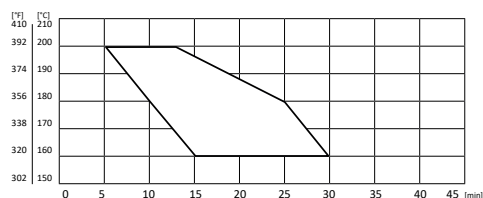
* exemptions prevail

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

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 <i>matte</i> smooth <i>semigloss</i>
ISO 2360	film thickness recommended	60-80 µm
ISO 2813	gloss - 60°	<i>matte</i> 20-35 <i>semigloss</i> 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)