

Series 68 highly durable

HIGHLY WEATHER RESISTANT POWDER COATING FOR ARCHITECTURAL APPLICATION
BASIS: ON POLYESTER

Typical application

- metal facades
- steel construction
- traffic signals
- marine equipment

Product details

Standard Packaging In original boxes of 20 kg each as well as in Minipacks of 2.5 kg each

Specific Gravity (ISO 8130-2) 1.2-1.6 g/cm³ depending on pigmentation

Theoretical Coverage at 60 µm film thickness: 10.4-13.8 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

- excellent weather resistance
- good flow properties
- good storage stability
- batch consistency of RAL colors acc. to VdL guidance no. 10

Finish

Finish	Gloss
smooth <i>glossy</i>	80 – 95*
smooth <i>semi gloss</i>	63 – 77*
smooth <i>matte</i>	20 – 30*
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			Galvanized Steel			Steel		
Degreasing	○			○			○		
¹⁾ Chromating	○	○	○	○	○	○	○	○	○
²⁾ Pre-Anodizing	○	○	○						
²⁾ Chrome free	○	○	○	○	○				
Iron Phosphating							○		
Zinc Phosphating				○	○	○	○	○	○
Blasting							○	○	○
³⁾ Sweeping				○	○	○	○	○	○
	I	E	A	I	E	A	S	I	S ⁴

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

- 1) acc. to DIN 50939
- 2) acc. to GSB quality and test regulations. The suitability of this type of pretreatment needs to be established through a boiling water test and subsequent cross-hatch adhesion and adhesive tape removal test.
- 3) only for zinc coated parts > 45 µm
- 4) for a two-coat process TIGER Shield

Processing

Corona, Tribostatic*

* Suitability of metallic and fine texture effects 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

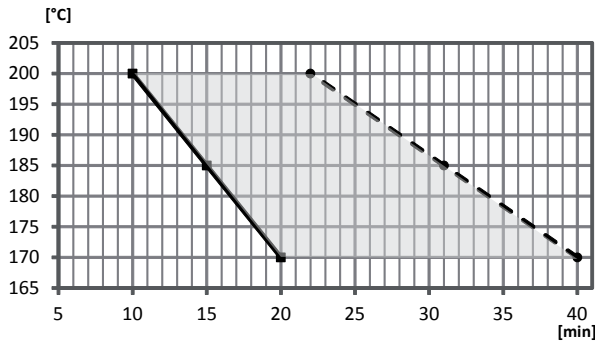
Finish	GSB Master	QUALICOAT Class 2
smooth <i>glossy</i>	-	P-0912
smooth <i>semi gloss</i>	MZ 174e	P-1081
smooth <i>matte</i>	MZ 174k	P-0834
fine texture <i>matte</i>	MZ 174m	P-0911

* exemptions prevail

Cure parameters

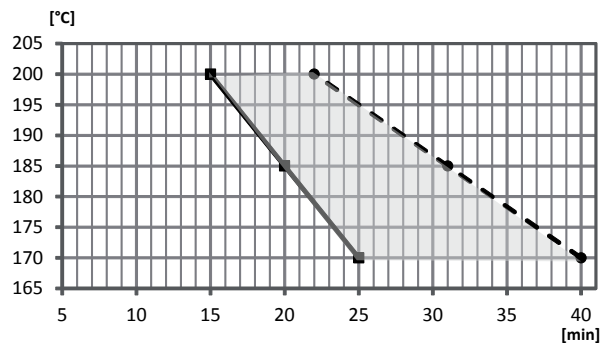
(Substrate temperature versus curing time)

smooth *matte*



substrate temp.	min. curing time	max. curing time
200°C	10 minutes	22 minutes
185°C	15 minutes	31 minutes
170°C	20 minutes	40 minutes

smooth *glossy* | smooth *semi gloss* | fine texture *matte*



substrate temp.	min. curing time	max. curing time
200°C	15 minutes	22 minutes
185°C	20 minutes	31 minutes
170°C	25 minutes	40 minutes

Please observe cure parameters closely since mechanical properties will develop before full cross-linking!

Test results

Checked under laboratory conditions on a chromated 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 68 smooth <i>glossy</i> smooth <i>semigloss</i> smooth <i>matte</i>	Series 68 fine texture <i>matte</i>
ISO 2360	film thickness recommended	60-80 µm	70-90 µm
ISO 2813	gloss - 60°	gl. 80-95 sgl. 63-77 matte 20-30	visual <i>matte</i>
ISO 2409	cross cut test/adhesion 1 mm cutting distance	0	0
ISO 1519	mandrel bending test cracking of coating adhesive tape removal	≤ 5 mm permitted no removal of coating	≤ 5 mm permitted no removal of coating
ISO 2815	impression hardness	≥ 80	not measurable
ISO 1520	cupping test cracking of coating adhesive tape removal	≥ 5 mm permitted no removal of coating	≥ 5 mm permitted no removal of coating
ASTM D 2794	ball impact test cracking of coating adhesive tape removal	20 Inch/pound permitted no removal of coating	20 Inch/pound permitted no removal of coating
ISO 6270-1	determination of resistance to humidity 1000 h	infiltration at cross-section max. blistering 1 mm	infiltration at cross-section max. blistering 1 mm
ISO 9227	salt spray test 1000 h	infiltration at cross-section max. blistering 1 mm	infiltration at cross-section max. blistering 1 mm
acc. to ISO 16474-3	accelerated weathering UV-B (313 nm) 600 h *	residual gloss ≥ 50 %	residual gloss ≥ 50 %
EN ISO 16474-2	accelerated weathering test xenon-arc radiation 1000 h **	residual gloss ≥ 90 %	residual gloss ≥ 90 %
EN ISO 2810	natural weathering in Florida 36 month	residual gloss ≥ 50 %	residual gloss ≥ 50 %

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

Processing instructions

The guidelines for application (datasheet 1213) must be strictly observed.

The Product Data Sheets, Technical Information Sheets and the guidelines for application each in their latest version, available as a download at 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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The Technical Information Sheets and the Terms of Delivery and Payment each in their latest version, available as a download at www.tiger-coatings.com, form an integral part of this Product Data Sheet.

certified according to
EN ISO 9001 / 14001



TIGER Coatings GmbH & Co. KG

Negrellistrasse 36 | 4600 Wels | Austria

T +43 / (0)7242 / 400-0

F +43 / (0)7242 / 650 08

E powdercoatings@tiger-coatings.com

W www.tiger-coatings.com