

# Series 68 highly durable

HIGHLY WEATHER RESISTANT POWDER COATING FOR ARCHITECTURAL APPLICATION  
BASIS: 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/cm<sup>3</sup> depending on pigmentation

**Theoretical Coverage** at 60 µm film thickness: 10.4-13.8 m<sup>2</sup>/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 – 35*
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	○			○			○		
<sup>1)</sup> Chromating	○	○	○	○	○	○	○	○	○
<sup>2)</sup> Pre-Anodizing	○	○	○						
<sup>2)</sup> Chrome free	○	○	○	○	○				
Iron Phosphating							○		
Zinc Phosphating				○	○	○	○	○	○
Blasting							○	○	○
<sup>3)</sup> Sweeping				○	○	○			
	I	E	A	I	E	A	S	I	S <sup>4)</sup>

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

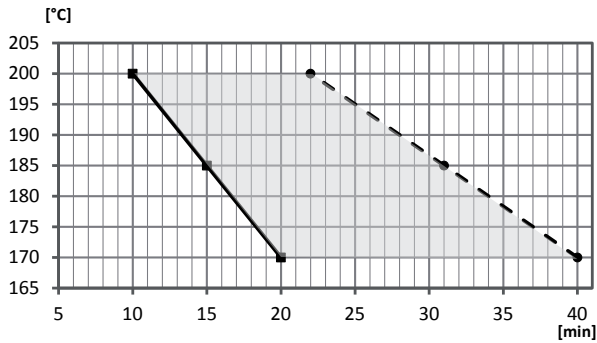
Finish	GSB Master	QUALICOAT Class 2
smooth <i>glossy</i>	-	P-0912
smooth <i>semi gloss</i>	MZ 174e	P-1081
smooth <i>matte</i>	MZ 174k	P-0834
fine texture <i>matte</i>	MZ 174m	P-1317

\* exemptions prevail

## Cure parameters

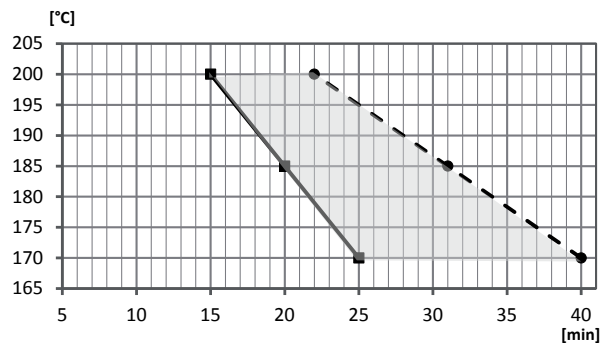
(Substrate temperature versus curing time)

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	<b>film thickness recommended</b>	60-80 µm	70-90 µm
ISO 2813	<b>gloss - 60°</b>	gl. 80-95   sgl. 63-77   matte 20-35	visual <i>matte</i>
ISO 2409	<b>cross cut test/adhesion</b> 1 mm cutting distance	0	0
ISO 1519	<b>mandrel bending test</b> cracking of coating adhesive tape removal	≤ 5 mm permitted no removal of coating	≤ 5 mm permitted no removal of coating
ISO 2815	<b>impression hardness</b>	≥ 80	not measurable
ISO 1520	<b>cupping test</b> cracking of coating adhesive tape removal	≥ 5 mm permitted no removal of coating	≥ 5 mm permitted no removal of coating
ASTM D 2794	<b>ball impact test</b> 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	<b>determination of resistance to humidity</b> 1000 h	delamination around scribe max. 1 mm	delamination around scribe max. 1 mm
ISO 9227	<b>salt spray test</b> 1000 h	delamination around scribe max. 1 mm	delamination around scribe max. 1 mm
acc. to ISO 16474-3	<b>accelerated weathering</b> UV-B (313 nm) 600 h *	residual gloss ≥ 50 %	residual gloss ≥ 50 %
EN ISO 16474-2	<b>accelerated weathering test</b> xenon-arc radiation 1000 h **	residual gloss ≥ 90 %	residual gloss ≥ 90 %
EN ISO 2810	<b>natural weathering</b> in Florida 36 month	residual gloss ≥ 50 %	residual gloss ≥ 50 %

\* acc. to GSB AL 631 ([www.gsb-international.de](http://www.gsb-international.de)) \*\* acc. to QUALICOAT specifications ([www.qualicoat.net](http://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](http://www.tiger-coatings.com).

## Disclaimer

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certified according to  
EN ISO 9001 / 14001



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