

# Series 68 super durable

SUPER DURABLE RESISTANT POWDER COATING FOR ARCHITECTURAL APPLICATION  
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 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
- Product line „TIGER Motivo“ for thermo sublimation of wood and marble finishes
- Product line “3D” liquid-paint-like metallic effect powder coating in one coat

## Finish

| Finish                       | Gloss    |
|------------------------------|----------|
| smooth <i>glossy</i>         | 80 – 95* |
| smooth <i>semi gloss</i>     | 63 – 77* |
| smooth <i>matte</i>          | 20 – 35* |
| smooth <i>flat matte</i>     | 2 – 19*  |
| fine texture <i>matte</i> ** | 2 – 18*  |

\* 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)

\*\* New: Series 67 Fine Texture FlexCURE replaces Series 68 Fine Texture.

## 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-<br>minum |   |   | Steel |                 |                 | Galvanized<br>Steel |   |                 |
|-----------------------------|---------------|---|---|-------|-----------------|-----------------|---------------------|---|-----------------|
| <sup>1) 2)</sup> Chromating | ○             | ○ | ○ |       |                 |                 | ○                   | ○ | ○               |
| <sup>2)</sup> Pre-Anodizing | ○             | ○ | ○ |       |                 |                 |                     |   |                 |
| <sup>2)</sup> Chrome free   | ○             | ○ | ○ |       |                 |                 | ○                   | ○ | ○               |
| Iron Phosphating            |               |   |   | ○     |                 |                 |                     |   |                 |
| Zinc Phosphating            |               |   |   | ○     | ○               |                 | ○                   | ○ | ○               |
| Blasting                    |               |   |   | ○     | ○               |                 |                     |   |                 |
| <sup>3)</sup> Sweeping      |               |   |   |       |                 |                 | ○                   | ○ | ○               |
| Degreasing                  | ○             |   |   | ○     |                 |                 | ○                   |   |                 |
|                             | I             | E | A | I     | E <sup>4)</sup> | A <sup>5)</sup> | I                   | E | A <sup>5)</sup> |

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

Footnote

<sup>1)</sup> acc. DIN EN 12487

<sup>2)</sup> acc. to GSB and QCT Quality and test regulations

<sup>3)</sup> only for zinc coated parts > 45µm

<sup>4)</sup> for a two-coat process TIGER Series 270 / 271 / 272 / 273

<sup>5)</sup> 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<br>Florida 3 | QUALICOAT<br>Class 2 |
|-------------------------------------------------|------------------|----------------------|
| smooth <i>glossy</i>                            | –                | P-0912               |
| smooth <i>semi gloss</i>                        | 174e             | P-1081               |
| smooth <i>matte</i>                             | 174k             | P-0834               |
| smooth <i>flat matte</i>                        | –                | P-1547               |
| fine texture <i>matte</i>                       | 174m             | P-1317               |
| <b>Fire rating</b>                              |                  |                      |
| acc. to EN 13501-1:2018 with result A2-s1, d0** |                  |                      |

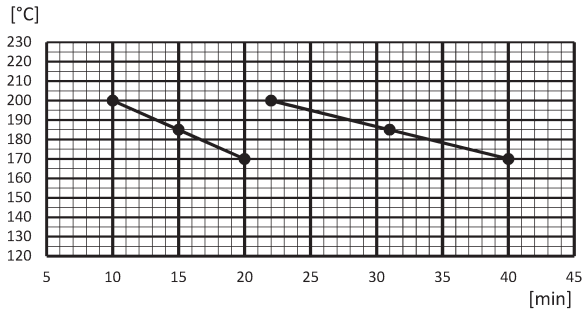
\* exemptions prevail

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

## Cure parameters

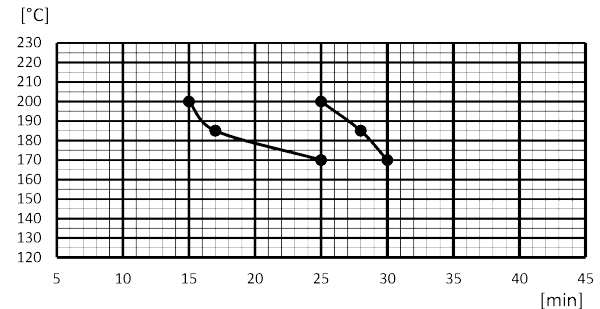
(Substrate temperature versus curing time)

smooth *matte*



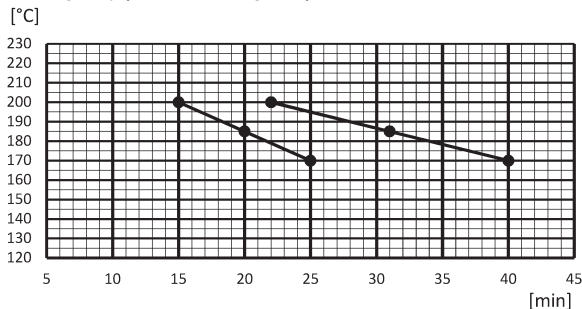
| T      | t min  | t max  |
|--------|--------|--------|
| 170 C° | 20 min | 40 min |
| 185 C° | 15 min | 31 min |
| 200 C° | 10 min | 22 min |

smooth *flat matte*



| T      | t min  | t max  |
|--------|--------|--------|
| 170 C° | 25 min | 30 min |
| 185 C° | 17 min | 28 min |
| 200 C° | 15 min | 25 min |

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



| T      | t min  | t max  |
|--------|--------|--------|
| 170 C° | 25 min | 40 min |
| 185 C° | 20 min | 31 min |
| 200 C° | 15 min | 22 min |

Please observe cure parameters closely!

## 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 68<br>smooth <i>glossy</i>   smooth <i>semigloss</i><br>smooth <i>matte</i>   smooth <i>flat matte</i> | Series 68<br>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   str. 2-19                                                              | visual <i>matte</i>                          |
| ISO 2409    | <b>cross cut test/adhesion</b><br>1 mm cutting distance                     | 0                                                                                                             | 0                                            |
| ISO 1519    | <b>mandrel bending test</b><br>cracking of coating<br>adhesive tape removal | ≤ 5 mm<br>permitted<br>no removal of coating                                                                  | ≤ 5 mm<br>permitted<br>no removal of coating |
| ISO 2815    | <b>impression hardness</b>                                                  | ≥ 80                                                                                                          | not measurable                               |

| test method            | test                                                                    | Series 68<br>smooth <i>glossy</i>   smooth <i>semigloss</i><br>smooth <i>matte</i>   smooth <i>flat matte</i> | Series 68<br>fine texture <i>matte</i>              |
|------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| ISO 1520               | <b>cupping test</b><br>cracking of coating<br>adhesive tape removal     | ≥ 5 mm<br>permitted<br>no removal of coating                                                                  | ≥ 5 mm<br>permitted<br>no removal of coating        |
| ASTM D 2794            | <b>ball impact test</b><br>cracking of coating<br>adhesive tape removal | 20 Inch/pound<br>permitted<br>no removal of coating                                                           | 20 Inch/pound<br>permitted<br>no removal of coating |
| ISO 6270-1             | <b>determination of resistance to humidity</b> 1000 h                   | delamination around scribe<br>max. 1 mm                                                                       | delamination around scribe<br>max. 1 mm             |
| ISO 9227               | <b>salt spray test</b><br>1000 h                                        | delamination around scribe<br>max. 1 mm                                                                       | delamination around scribe<br>max. 1 mm             |
| acc. to<br>ISO 16474-3 | <b>accelerated weathering</b><br>UV-B (313 nm) 600 h *                  | residual gloss ≥ 50 %                                                                                         | residual gloss ≥ 50 %                               |
| EN ISO 16474-2         | <b>accelerated weathering test</b><br>xenon-arc radiation 1000 h **     | residual gloss ≥ 90 %                                                                                         | residual gloss ≥ 90 %                               |
| EN ISO 2810            | <b>natural weathering</b><br>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) 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](http://www.tiger-coatings.com).

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EN ISO 9001 / 14001  
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