

# Series 59 weather resistant

POWDER COATING FOR EXTERIOR (NON-ARCHITECTURAL) APPLICATIONS AND STEEL CONSTRUCTION

BASIS: POLYESTER

THIS PRODUCT DATA SHEET DOES NOT EXTEND TO NEON/FLUORESCENT EFFECTS

## Typical application

- ACE (agricultural and construction equipment)
- patio furniture
- garden equipment
- sporting goods

## 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)** 1.2-1.7 g/cm<sup>3</sup> depending on pigmentation

**Theoretical Coverage** at 60 µm film thickness: 9.8-13.8 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

- good weather resistance (for architectural applications products of Series 29 or 14 must be used)
- good mechanical properties
- good flow properties
- good storage stability

## Finish

Finish	Gloss
smooth <i>glossy</i>	80 – 95*
smooth <i>semi glossy</i>	65 – 75*
smooth <i>matte</i>	20 – 35*
fine texture <i>matte</i>	–
rough texture <i>glossy</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	I	E	S	I	E	S <sup>4</sup>

Application: I = interior; E = exterior; 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.

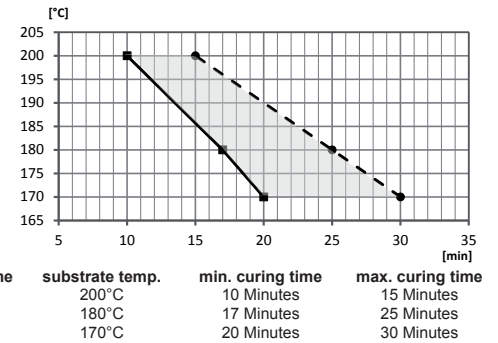
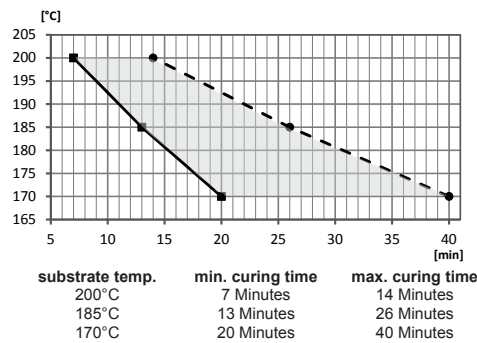
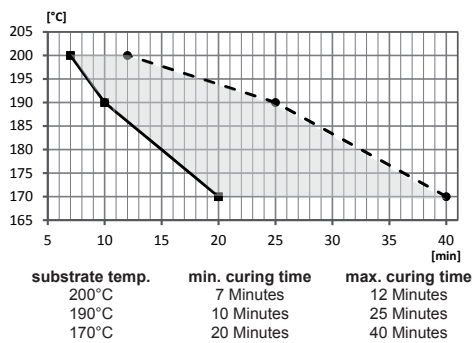
## Cure parameters

(Substrate temperature versus curing time)

smooth *glossy* | rough texture *glossy*

smooth *semi gloss*

smooth *matte* | fine texture *matte*



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 59 smooth <i>glossy</i>   smooth <i>matte</i> smooth <i>semigloss</i>	Series 59 fine texture <i>matte</i>	Series 59 rough texture <i>glossy</i>
ISO 2360	<b>film thickness recommended</b>	60-80 µm	70-90 µm	90-120 µm
ISO 2813	<b>gloss - 60°</b>	<i>gl.</i> 80-95   <i>sgl.</i> 65-75   <i>matte</i> 20-35	visual <i>matte</i>	visual <i>glossy</i>
ISO 2409	<b>cross cut test/adhesion</b> 1 mm cutting distance	0	0	0
ISO 1519	<b>mandrel bending test</b> cracking of coating	<i>gl./sgl.</i> ≤ 5 mm   <i>matte</i> ≤ 6 mm not permitted	≤ 10 mm permitted	≤ 10 mm permitted
ISO 2815	<b>impression hardness</b>	≥ 80	not measurable	not measurable
ISO 1520	<b>cupping test</b> cracking of coating	≥ 5 mm not permitted	≥ 3 mm permitted	≥ 3 mm permitted
ASTM D 2794	<b>ball impact test</b> cracking of coating	20 Inch/pound not permitted	20 Inch/pound permitted	20 inch/pound permitted
ISO 6270-1	<b>determination of resistance to humidity</b> 500 h	delamination around scribe max. 1 mm	delamination around scribe max. 1 mm	delamination around scribe max. 1 mm
ISO 9227	<b>salt spray test</b> 500 h	delamination around scribe max. 1 mm	delamination around scribe max. 1 mm	delamination around scribe max. 1 mm

## 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).

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EN ISO 9001 / 14001



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