

Series 59 Dormant

TWO COAT SYSTEM METALLIC - POWDER COATING
POLYESTER-BASED

Typical applications

- Sports items
- Consumer goods not permanently exposed to UV light

Product details

| | |
|-----------------------------|--|
| Packaging | In original boxes of 20 kg as well as in Minipacks of 2.5 kg |
| Density (ISO 8130-2) | 1.2 - 1.7 g/cm ³ depending on the shade |
| Theoretical coverage | with 60 µm film thickness: 9.8 - 13.8 m ² /kg depending on density (see most recent edition of data sheet no. 1072) |
| Shelf life | Use by: see date on Product label; dry below 25° C, protect against exposure to direct heat |

(Please note, in case of customer-specific blanket orders or storage agreements, which by their nature are stored for an extended period of time, the shelf life date is calculated from the date of the original production.)

Properties

- Good transparent effect
- Good flow

Finish | Colors

- 1. coat - dormant:**
As a special product
- 2. coat - transparent:**
Transparent - Series 59

| Finish | Gloss level |
|--------------------------|-------------|
| smooth <i>gloss</i> | visual |
| smooth <i>semi-gloss</i> | visual |
| smooth <i>matte</i> | visual |
| smooth <i>flat matte</i> | visual |

Pre-treatment

The following overview matrix shows the current methods depending on different substrates and typical applications. Please consider the suitability of the respective powder coating series for a desired typical application according to our data in this data sheet

| | Alu- minum | | Galvanized Steel | | | Steel | | |
|--------------------------|---------------|---|---------------------|---|---|-------|---|-----------------|
| ¹⁾ Chromating | ○ | ○ | ○ | ○ | ○ | | | |
| Pre-anodization | | | | | | | | |
| Chrome-free | | | ○ | ○ | | | | |
| Iron phosphating | | | | | | ○ | | |
| Zinc phosphating | | | ○ | ○ | ○ | ○ | ○ | ○ |
| Blasting | | | | | | ○ | ○ | ○ |
| ²⁾ Sweeping | | | ○ | ○ | ○ | | | |
| | I | A | I | A | S | I | A | S ³⁾ |

Typical applications: I = interior; A = exterior; S = steel

- ¹⁾ acc. to EN 12487
- ²⁾ Only for workpieces with zinc coatings > 45 µm
- ³⁾ for the 2-coat system TIGER Shield

Processing | Spraying

Standard product: Korona and Tribo*
Special product: Korona only; Tribo* on request

* Suitability of Tribo processing for metallic powder coatings and fine texture effects must be verified on the coating line prior to actual application. Please see the most recent edition of our data sheets for metallic effects.

Cure parameters

Recommended film thickness:

1. coat Dormant: 70-90 μm
2. coat transparent clear: 60-80 μm

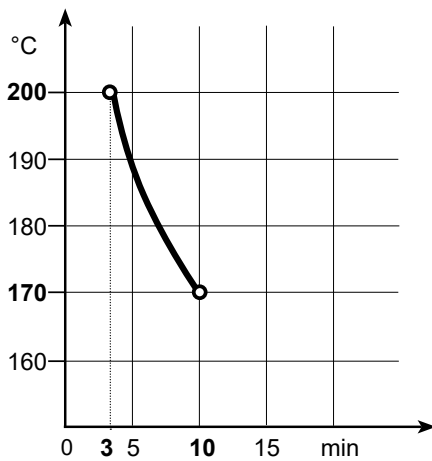
Always use the same curing values for a shade, as different curing times or temperatures can lead to differences in shades. In addition, it is important to ensure film thickness consistency. Due to the increased film thickness, the mechanical properties (cutting, drilling, milling) are reduced. To reduce the risk of cracking in the finish caused by stress, we recommend curing the clear or transparent top coat only in the upper temperature range in accordance with the curing conditions.

When working with two-coat systems we recommend pre-gelling. Gelling allows for reaching the required substrate temperature and therefore the desired degree of under-curing that results in improved adhesion between the film layers during the subsequent application of the top coat. The second coat must be cured as per the data sheet.

A reduction of the adhesion between primer and top coat can occur during pre-gelling and curing of the powder coating in directly heated gas ovens. As a result, the exact curing conditions (curing time and temperature) must be determined individually depending on the application and the coating line.

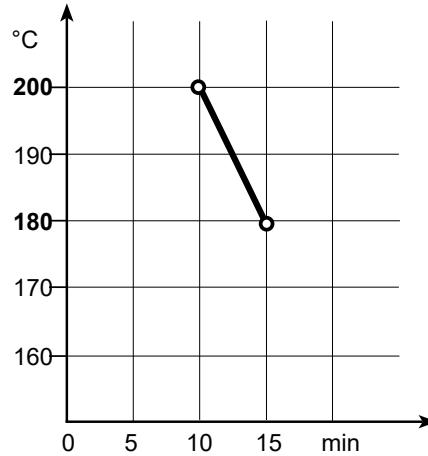
Substrate temperature

TIGER Drylac® Series 59 Dormant 1. coat



Object temperature versus curing time

TIGER Drylac® Series 59 transparent 2. coat



Object temperature versus curing time

Please observe curing parameters closely since mechanical properties will develop before full cross-linking! Please verify the suitability of bike stickers (bike decals) prior to the intended application in your own responsibility.

Always use the same curing values for a shade, as different curing times or temperatures can lead to differences in shades. In addition, a consistent film thickness must be ensured.

Note

When changing the color, the coating line must be thoroughly cleaned. We also recommend a longer oven ventilation period as slight discolorations of parallel or subsequently cured color shades cannot be excluded.

Different material stresses between substrate versus coating can lead to stress cracks in the powder coating layer in non-pigmented coatings (e.g. clear); in order to minimize this risk, we recommend curing the clear or transparent top coat only in the upper temperature range in accordance with the curing conditions.

Effect and color differences between laboratory sampling and actual production must be expected.

Test results

Tested on a 0.7 mm thick chromated aluminum panel based on tests performed under laboratory conditions. 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 Dormant Series 59 transparent |
|-------------|--|--|
| ISO 2360 | Film thickness recommended | 120-160 µm |
| ISO 2409 | Crosscut test / adhesion 1 mm cutting distance | 0 |
| | Drilling and cutting behavior | OK |
| ISO 6270-1 | Determination of resistance to humidity (continuous condensation) 500 h | Delamination around scribe max. 1 mm |
| ISO 9227 | Salt spray test 500 h | Delamination around scribe max. 1 mm |

Processing instructions

The guidelines for application (data sheet 1213) must be strictly observed. The Product Data Sheets, Technical Information Sheets and the guidelines for application each in their latest version, are 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 to the best of our knowledge in accordance with present technological standards. These are given in order to support the buyer or user. They are non-binding and do not constitute any contractual legal relationship or additional obligation from the purchase agreement. They do not release the purchaser from verifying the suitability of our products for the intended application at his own responsibility. We warrant

that our products are free of flaws and defects to the extent as stipulated in our Terms of Delivery and Payment.

As part of our duty to inform, we modify our product information periodically according to technical progress. Therefore, please visit the download area of www.tiger-coatings.com to make sure you have the most current version of this Product Data Sheet. TIGER Coatings GmbH & Co. KG reserves the right to make changes to the Product Data Sheet without written notification.

This Product Data Sheet substitutes any and all previous Product Data Sheets and notes for customers published on this subject matter and is only intended to give a general product overview. Please request specific information for products outside of our standard product list (latest version).

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
IATF 16949



TIGER Coatings GmbH & Co. KG
Negrellistrasse 36 | 4600 Wels | Austria
T +43 / (0)7242 / 400-0
E powdercoatings@tiger-coatings.com
W www.tiger-coatings.com