

# Series 59 Flip-Flop

WEATHER-RESISTANT EFFECT-POWDERCOATING ON POLYESTER BASE FOR E-STATIC APPLICATIONS.

## Typical applications

- Sports equipment
- Wheels

Holographic effect-powdercoatings exhibit attractive, constantly changing accents - depending on viewing angle and light source. The iridescent characteristic of the effect is achieved with multi-colored holographic pigments. Thanks to the refracting metal-oxide layer, they exhibit a highly metameric iridescent effect, although the color-flop is significantly reduced in diffuse light. An additional transparent top-coat ensures the look of particular depth and the movement of the merging color-nuances in the finish.

Exterior applications are possible but require knowledge in terms of processing and application. Due to the special characteristics of the effect pigments used and depending on viewing angles and lighting, there is a limitless interplay of color and effect with metallic shimmering nuances. As a result there is a chance that after installation there may be a visible difference due to warping or failure to align the components correctly. In addition, the direction of suspension must be observed as well during the coating process. It must always be the same as the mounting direction. Gloves must be worn when handling, transporting and mounting the coated parts to avoid fingerprints!

## Product details

<b>Packaging</b>	In original cartons of 20 kg and in Minipacks at 2.5 kg
<b>Density (ISO 8130-2)</b>	1.2 - 1.7 g/cm <sup>3</sup> depending on the shade
<b>Theoretical coverage</b>	with 60 µm film thickness: 9.8 - 13.8 m <sup>2</sup> /kg depending on density (see most recent edition of data sheet no. 1072)
<b>Shelf life</b>	Use before: see date on product label; dry below 25°C, protect against the influence of 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.)

## Features

- holographic effects
- very good flow
- very good mechanical properties
- good storage stability

## Finish

Surface	Gloss level
smooth <i>gloss</i>	visual
smooth <i>semi gloss</i>	visual
smooth <i>matte</i>	visual

## Pre-treatment

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

	Alu- minum		Galvanized Steel			Steel*		
<sup>1)</sup> Chromating	○	○	○	○	○			
Pre-anodization	○	○						
Chrome-free	○	○	○	○				
Iron phosphating						○		
Zinc phosphating			○	○	○	○	○	○
Blasting						○	○	○
<sup>2)</sup> Sweeping			○	○	○			
	I	A	I	A	S	I	A	S

Applications: I = interior; A = exterior; F = architectural; S = steel

<sup>1)</sup> as per DIN EN 12487

<sup>2)</sup> Only for workpieces with zinc coatings > 45 µm

\* Some products are not suitable for e-coat or primer applications. Please contact our sales team for more detailed information.

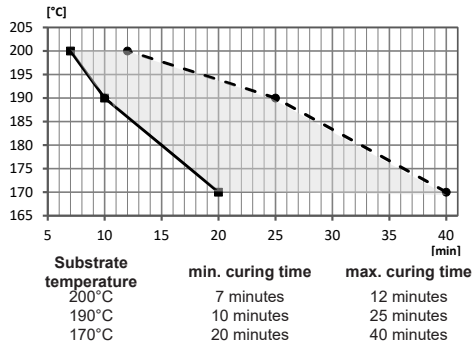
## Processing | Spraying

### Corona

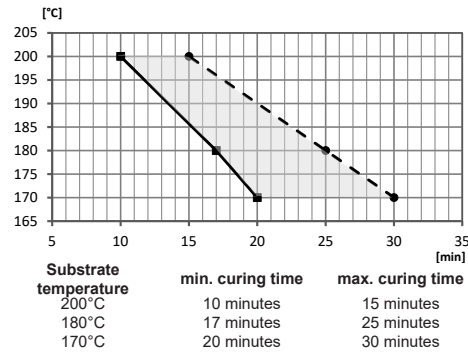
## Cure parameters

(Substrate temperature versus curing time)

smooth *glossy* | smooth *semi gloss*



smooth *matte*



Please observe curing 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 59 Flip-Flop smooth <i>glossy</i>   smooth <i>semi gloss</i>   glatt <i>matte</i>
ISO 2360	<b>Film thickness recommended</b>	60-80 µm
ISO 2813	<b>Reflectometer value - 60°</b>	visual
ISO 2409	<b>Crosscut test / adhesion</b> 1 mm cutting distance	0
ISO 1519	<b>Mandrel bend test</b> Cracking of coating	≤ 5 mm not permitted
ISO 2815	<b>Impression hardness</b>	≥ 80
ISO 1520	<b>Cupping test</b> Cracking of coating	≥ 5 mm not permitted
ASTM D 2794	<b>Ball impact test</b> Cracking of coating	20 inch/pound not permitted
ISO 6270-1	<b>Determination of resistance to humidity (continuous condensation) 1,000 h</b>	Delamination around scribe max. 1 mm
ISO 9227	<b>Salt spray test</b> 1000 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](http://www.tiger-coatings.com).

The information about the application of Metallic Category A - D products in the Technical Instruction Sheet number 44 must be observed.

## 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](http://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](http://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](mailto:powdercoatings@tiger-coatings.com)  
W [www.tiger-coatings.com](http://www.tiger-coatings.com)