

Series 59 NEON Colors

POWDER COATING PRIMARILY FOR INTERIOR APPLICATIONS OR OCCASIONAL EXTERIOR USE. COATED ITEMS MUST BE STORED INSIDE WHEN NOT IN USE; 2- OR 3-COAT-SYSTEM, CLEAR TOP-COAT IS REQUIRED
 BASE: POLYESTER, HOWEVER VERY LIMITED WEATHER RESISTANCE, SOME OF THE PRODUCTS NEED A WHITE BASE-COAT*

Applications

- Sporting goods
- Bicycles
- Store fixtures (interior)

Properties

- High luminosity
- Good flow
- Good storage stability

Product details

- Packaging** In original boxes of 20 kg each as well as in minipacks of 2.5 kg each
- Density (ISO 8130-2)** 1.2 - 1.7 g/cm³ depending on the shade
- Theoretical coverage** With 60 µm film thickness: 9.8 - 13.8 m²/kg depending on density (see most recent edition of data sheet no. 1072)
- Shelf life** Use until: see date on product label; dry below 25°C, protect against the influence of direct heat

(In the case of customer-specific blanket orders or storage agreements, which are stored for a long period of time, the shelf life date is calculated from the date of production.)

Finish | Colors

The available colors can be found in our current color chart - please contact your TIGER representative.

Information

Two-coat application (= base-coat Neon with top-coat [by way of illustration,] Clear 16/00059 flat matte or 40/00003 glossy) only; recommended min. film thickness Neon base-coat: 70-90 µm, clear top-coat: 60-80 µm. Curing conditions with two-coat system (substrate temperature versus curing time): we always recommend gelling (= fusing of the base coat, unless otherwise specified) without complete curing (different part geometries and metal thicknesses must be observed). Gelling involves achieving the required substrate temperature and therefore a deliberate undercuring resulting in an improved adhesion between layers when the subsequent top-coat is applied and fully cured. It also saves time and money. The second coat must be allowed to cure in accordance with product data sheet (complete curing).
 Decals: please verify their suitability for and prior to the intended application.

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			Steel	galvanized Steel		
¹⁾⁺²⁾ Chromating	○	○	○		○	○	○
²⁾ Pre-Anodizing	○	○	○				
²⁾ Chrome free	○	○	○		○	○	○
Iron Phosphating				○			
Zinc Phosphating				○	○	○	○
Blasting				○	○		
³⁾ Sweepen						○	○
Degreasing	○			○		○	
	I	E	A	I	⁴⁾ E	I	E

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

¹⁾ acc. to DIN 12487
²⁾ acc. to GSB and QUALICOAT quality and test regulations.
³⁾ only for zinc coated parts > 45 µm
⁴⁾ for a two-coat process TIGER Series 270 / 271 / 272 / 273

Please mind the color change of the base coat when top-coating. Due to the higher film-build up mechanical properties will be reduced (drilling, milling, cutting). A top-coat with clear will slightly improve the the coating system, however the system still provides no UV and weather resistance. Please accept bigger color and effect variations between production batches, the effect of which is enhanced in a 2-coat, [or in case of Neon Red 59/30928 in a 3-coat] application. Please observe product data sheet no. 1066 and processing data sheet no. 1213 each in their latest version

NEON Red needs 3-coat application:

NEON Red** 59/30928 with base coat** 59/11590 White in addition with Top-Coat*** 40/00003 clear glossy 16/00019A3 clear matte.

*To obtain the effect as shown a white base-coat 59/11590 is required (use for interior application only). You may use a different base coat which will result in a different color/effect. If no base-coat is applied, the substrate will be visible (translucent effect). Always use a TIGER-Drylac® clear top-coat.

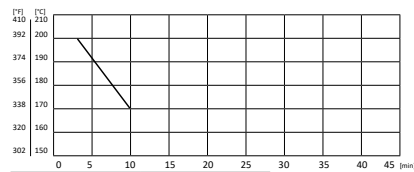
Curing conditions 2-coat system

(Product temperature vs. curing time)

In the case of a 2-coat system, we recommend gelling (= fusing of the base-coat, unless otherwise specified, without complete curing, different geometries for parts, and metal thicknesses must be observed). Gelling involves achieving the required substrate temperature and therefore a deliberate undercuring, which guarantees an improved adhesion between layers when the subsequent top-coat is applied and fully cured. It also saves time and money. The second coat must be allowed to cure in accordance with product data sheet (complete curing). During the pre-gelling and curing of the powder coating in directly heated gas ovens, a reduction of the adhesion between base and top-coat can occur. However, the exact curing conditions (curing time and temperature) must be determined individually depending on the application and the coating line. Check continuously for intercoat-adhesion!

Directly heated gas ovens can also have a negative impact on intercoat adhesion.

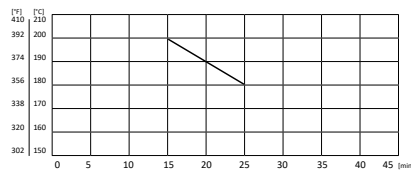
Base-coat NEON (gelling model)



Product temperature
170°C | 338 °F
200°C | 392 °F

min. curing time
10 Minuten
3 Minuten

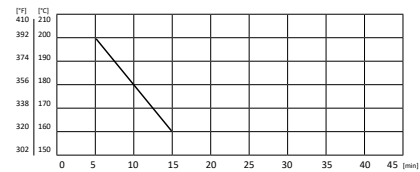
Top-coat clear flat matte 16/00059



Product temperature
180°C | 356 °F
200°C | 392 °F

min. curing time
25 Minuten
15 Minuten

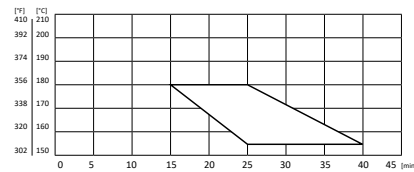
Top-coat clear glossy 40/00003



Product temperature
160°C | 356 °F
200°C | 392 °F

min. curing time
15 Minuten
5 Minuten

Top-coat clear matte 16/00019A3



min. Product temperature	max. Product temperature	curint time
155°C 311 °F	155°C 311 °F	40 Minuten
180°C 356 °F	180°C 356 °F	25 Minuten
		15 Minuten

Please observe curing parameters closely since mechanical properties will develop before full cross-linking! 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.

Test results

Tested on a 0.7 mm thick, chromated aluminum sheet based on tests performed under laboratory conditions at full curing time. These results may differ from the actual product performance due to product-specific parameters such as degree of gloss, color tone, effect, surface and concrete processing and usage influences.

Test method	Test	Serie 59 base-coat NEON
ISO 2360	Film thickness recommended	70-90 µm
ISO 2409	Crosscut test/ adhesion 1 mm cutting distance	0
ISO 1519	Mandrel bend test Cracking of coating	≤ 10 mm
ISO 1520	Cupping test Cracking of coating	≥ 3 mm permitted
ASTM D 2794	Ball Impact Test Cracking of coating	20 inch/pound permitted
ISO 6270-1	Determination of resistance to humidity 500 h	delamination around scribe max. 1 mm
ISO 9227	Salt spray test 500 h	delamination around scribe max. 1 mm

When used as a 2-coat system, a decrease in the mechanical values is to be expected as a result of the increase in the layer thickness. Due to the reduced mechanical properties, the usability must be checked for the respective application. Different material tensions between substrate versus coating may cause tension cracks in the powder coating layer with non-pigmented coatings (e.g. clear). Joint sealing compounds and other auxiliary materials such as glazing aids, lubricants, drilling and cutting lubricants etc., which come into contact with coated surfaces, must be pH-neutral and free of paint-damaging substances. Prior to coating, a suitability test at the applicator is therefore highly recommended.

Processing instructions

The guidelines for application (datasheet 1213) must be strictly observed. The Product Data Sheets, Technical fact Sheets and the guidelines for application in their latest version, 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.

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IATF 16949



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