



SERIES 47 WEATHER RESISTANT

A POWDER COATING FOR EXTERIOR (NON-ARCHITECTURAL) APPLICATION
BASED ON POLYESTER

Typical applications

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

Standard Packaging in 20 kg cartons,
2,5 kg minipack

Specific Gravity (ISO 8130-2) 1,2–1,7 g/cm³
depending on pigmentation

Theoretical Coverage at 60 µm film thickness:
9,8-13,8 m²/kg depending on specific gravity (please see also Technical Information Sheet no. 1072 - latest edition)

Storage Stability 6 months from date of delivery under dry conditions at no more than 20 °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 and 17 must be used)
- good mechanical properties
- good flow properties
- suited for lightly out-gassing substrates
- batch consistency of RAL colors acc. to VdL guidance no. 10

Finish I Colors

- smooth flow - glossy surface, approx. 80-95*
- smooth flow - semi gloss surface, approx. 75±5*
- also available in an out-gassing forgiving formulation.

* 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)

Available from stock in many RAL Colors. Any other color can be custom made with a minimum order of 60 kg.



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Pretreatment (alternatives)

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 on page one of this Product Data Sheet.

	ALU-MINUM	GALVANIZED STEEL	STEEL
¹⁾ Chromating	○	○	
²⁾ Anodizing	○	○	
²⁾ Chrome free	○	○	
Iron Phosphating			○
Zinc Phosphating		○	○
Blasting			○
³⁾ Sweeping		○	○
	I E A	I E A S	I E S ⁴⁾

Application I interior A architectural
 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 effects for tribo processing must be verified prior to application. Please consult with the relevant Information Sheets, latest edition.

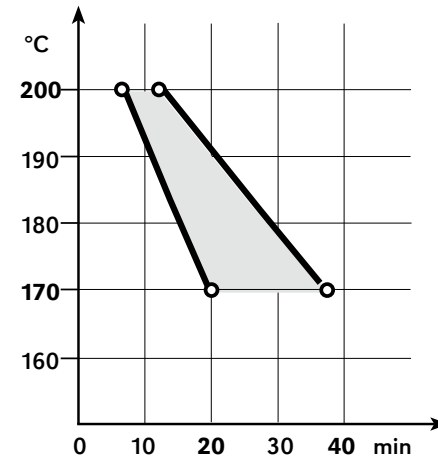
Please note

TIGER Drylac® Series 47 is suited for lightly out-gassing substrates. Introduce TIGER OGF (out-gassing forgiving) inhibitor 91/00013 according to the relevant product data sheet for heavily outgassing work pieces.

Cure parameters

(substrate temperature)

TIGER Drylac® Series 47 Weather Resistant smooth glossy | smooth semi gloss



substrate temperature versus curing time

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

Please note

When post bending of work pieces takes place, the suitability of the coating must be checked on original pieces before undertaking series production because the alloying, pre-treatment, bending radius, bending (environmental) conditions, temperature, wall thickness, film thickness, curing conditions, color, storage time and other factors influence flexural behavior. Microscopic cracks in the surface of the powder coating can lead to corrosive damage.

Non-colored coatings, e.g. clear coatings may be prone to stress cracks due to the difference in material tension between the substrate and the powder coating. In order to minimize the risk of stress cracks it is recommended to cure the clear and/or transparent top-coat only at the upper end of the relevant cure window as set forth in this Product Data Sheet.

Assurance must be given that sufficient and suitable non-plasticizing packing materials, as well as foils and labels, auxiliary agents and transport means, the suitability of which is to be checked in pre-trials, is used properly and can be easily removed at the given time (e.g. labels, adhesive tapes, etc.). In unfavorable storage conditions, especially outside, the interaction of water accumulation



(e.g. beneath packaging foils) and heat may lead to milky-white stains. This possible and occasional physical process is often reversible through thermal influence (e.g. re-tempering in the oven, industrial blower), respectively, can be reduced or hindered through the use of perforated foils.

Joint sealants and any other auxiliary products, such as glazing aids, gliding waxes, drilling and cutting lubricants, which come in contact with the coated surface must be ph-neutral and free of substances which may damage the finish. Prior to coating a suitability test at the applicator is therefore highly recommended.

Pay attention to pigment related color differences especially of bright red-orange-yellowed shades between TIGER Drylac® for architectural application and TIGER Drylac® for weather resistant application and adhere to one product throughout each coating job. Please mind the effect and color differences between a lab match versus an actual production.

A top-coat with a clear exterior grade powder coating over an interior grade powder coating does not produce a weather resistant coating.

Note that for any and all metallic effect powder coatings that are not explicitly marked as a one-coat system, a top-coat with a clear powder coating is imperative. Please also see the information Sheets on the subject matter, latest edition.

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 results	test method	Series 47 smooth glossy	Series 47 smooth semi gloss
film thickness	ISO 2360	60-80 µm	60-80 µm
gloss - 60°	ISO 2813	80-95	75±5
cross cut test - 1 mm	ISO 2409	0	0
impression hardness	ISO 2815	≥ 87	≥ 87
mandrel bending test	ISO 1519	≤ 5 mm	≤ 5 mm
cupping test	ISO 1520	≥ 5 mm	≥ 5 mm
impact test 20 Inch / pound	ASTM D 2794	no appearance of cracks down to the substrate	no appearance of cracks down to the substrate
mortar resistance	ASTM D 3260	ok	ok
drill mill test		ok	ok
pencil hardness	ASTM D 3363	-	-
determination of resistance to humidity 1000 h	ISO 6270-1	max. blistering 1 mm	max. blistering 1 mm
salt spray test 1000 h	ISO 9227	max. undercutting 1 mm	max. undercutting 1 mm

Cleaning recommendation Please see Technical Information Sheet no. 1090 - latest edition

Chemical resistance

The required chemical resistance of a powder coating is, among other things, product-dependent and according to the situation and awareness of all pollutions must therefore be brought to agreement between the contract partners as soon as possible, at best during the projecting phase. Agreement is especially necessary in respect of the requirements profile and the monitoring method, which can take place according to EN ISO 2812-1 "Paint and Paint Materials Definition of Durability Against Fluids." Moreover, the duration of monitoring and effectiveness and concentration of the pollution mediums is to be established.



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certified according to
EN ISO 9001 / 14001



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