



SERIES 49 – INTERIOR AND EXTERIOR APPLICATIONS

Polyester TGIC weather resistant powder coating for interior and exterior applications.

Typical Applications

- Residential windows and doors.
- Lawn mowers and garden equipment.
- Patio furniture.
- Automotive accessories.
- Bicycles and motorcycles.
- Agricultural machinery.
- Sporting goods.
- Internal ship components.

Standard Packaging 44 & 55 lb (20 & 25 kg) boxes.
5 lb (2.5 kg) minipack.

Specific Gravity (ASTM D792) approximately 1.2-1.8 g/cm³
depending on pigmentation.

Theoretical Coverage at 1.5 specific gravity and
2.5 mils (60 µm) film thickness:
51.5 ft²/lb (11.1 m²/kg).

Refer also to the latest edition
of "Theoretic Powder Coating
Coverage Chart".
Version 00-1001 (imperial).
Version 00-1000 (metric).

Storage Stability 6 months at no more than
77 °F (25 °C).

Features

- Good weather resistance.
- Good mechanical properties.
- Good flow.
- Good coverage.
- Good storage stability.
- Available in Out Gassing Forgiving (OGF) formulation.
- Underwriter Laboratories recognized component (UL approved) for non metallic finishes.



Underwriters Laboratories Inc., (UL) Recognition.

Finish and Color

- Smooth glossy 80-95+*.
- Smooth semi gloss 55-65*.
- Smooth matte 15-25*.
- Rough texture glossy.
- Rough texture matte.
- Fine texture.
- Fluorescent.
- Clear, Glitter and Candy tones.
- Dormant transparent.
- Holographic colors.
- Metallics and other special effects.

* Gloss level according to ASTM 523 at 60° angle.

Available as stock product in a selection of colors and finishes (see color charts). It can be made to order in non stock colors (minimum order quantity applies).



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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 the suitability of the type of powder coating for a desired application according to the guidelines on page one of this Product Data Sheet should be observed.

	Aluminum	Galvanized Steel	Steel
Degreasing	○	○	○
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⁾

- I Interior.
- E Exterior.
- A Architectural.
- S Steel construction.

- 1) According to ASTM B 449.
- 2) According to GSB quality and test regulations.
- 3) Only for zinc coated parts >1.8 mils (>45 µm).
- 4) For a two-coat process/TIGER Shield®.

Processing

Corona

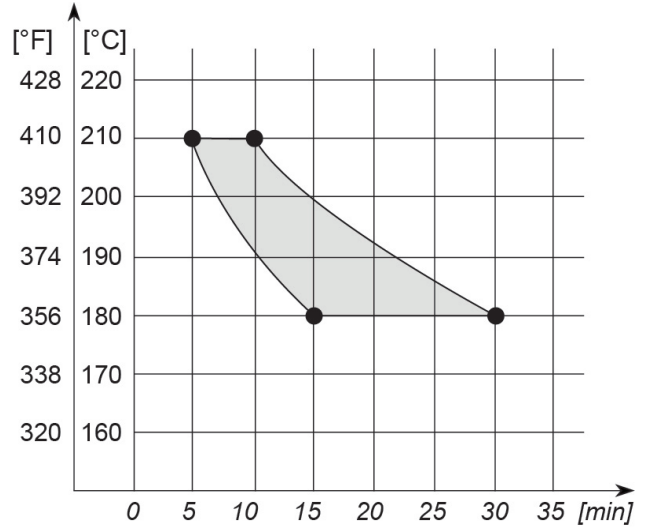
Tribo*

* For Tribo/Airstatic powder coatings please confirm before ordering. Suitability of metallic effects for Tribo processing must be verified prior to application. Please refer to the latest edition of the relevant Information Sheets.

Since not all powder coatings are suitable for recycling/reclaim, please verify before ordering.

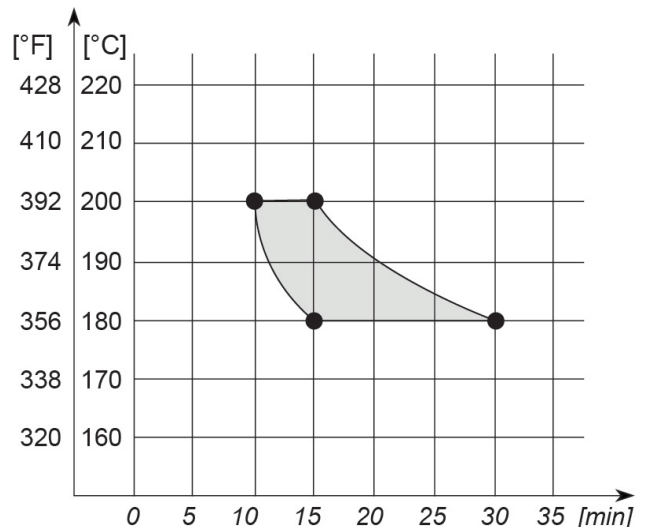
Cure Parameters (substrate temperature)

TIGER Drylac® Series 49
Cure Parameters | Smooth Glossy



Substrate temperature versus curing time

TIGER Drylac® Series 49
Cure Parameters | Smooth Matte



Substrate temperature versus curing time

To achieve a full cure and the desired mechanical properties and weatherability the time/temperature combination must fall within the cure window.

Series 49 - Interior and Exterior



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Please Note

For metallic finishes it is recommended to observe the guidelines published in the latest edition of TIGER Drylac® “Application guidelines for metallic effect powder coatings”.

Top coating with a clear exterior grade powder coating over an interior grade powder coating does not result into a weather resistant coating system.

Post-bending properties of any part must be verified prior to application. Minor cracks in the coated surface may lead to corrosion.

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 that may damage the finish. Therefore, a suitability test at the applicator’s end, prior to coating, is highly recommended.

In general, colors in the red, orange and yellow range may require an increased film thickness to achieve full hiding.

Please read and understand the Material Safety Data Sheet (MSDS) before use.

Test Results

Results are checked on iron phosphated steel test panels Bonderite B-1000 or equivalent. Cure conditions are according to the cure curves. When used as a two-coat system, the increase in film thickness will result in a decrease of mechanical properties.

Test results	Test method	Series 49 Glossy	Series 49 Semi Gloss	Series 49 Matte
Film thickness		2.5-3.5 mils (60-80 µm)	2.5-3.5 mils (60-80 µm)	2.5-3.5 mils (60-80 µm)
Gloss - 60°	ASTM D523	80-95+	55-65	15-25
Cross cut tape test	ASTM D3359 Method B	5B	5B	5B
Mandrel bending test	ASTM D522	≤1/8 inch (3 mm)	≤5/32 inch (4 mm)	≤3/16 inch (5 mm)
Impact test 80 in/lb	ASTM D2794	No appearance of cracks down to the substrate.	No appearance of cracks down to the substrate.	No appearance of cracks down to the substrate.
Pencil hardness	ASTM D3363	2H minimum.	2H minimum.	2H minimum.
Humidity resistance 1000 hours	ASTM D2247	Maximum undercutting 1/8 inch (3 mm). No blistering.	Maximum undercutting 1/8 inch (3 mm). No blistering.	Maximum undercutting 1/8 inch (3 mm). No blistering.
Salt spray resistance 1000 hours	ASTM B117	Maximum undercutting 1/8 inch (3 mm). No blistering.	Maximum undercutting 1/8 inch (3 mm). No blistering.	Maximum undercutting 1/8 inch (3 mm). No blistering.

Cleaning recommendations: Refer to the latest edition of TIGER “Cleaning Recommendations” information sheet, Version 00-1005.



Chemical Resistance

The required chemical resistance of a powder coating depends, among other things, on its formulation. Chemical resistance requirements must be considered according to processing conditions and final use of the finished product. This is best established during the product specification process. Agreement between all parties involved must be reached about the requirements for such chemical resistance as well as the test method, which may be performed in accordance with PCI test method #8 "Solvent Cure Test". Furthermore, the test duration and concentration of the test media need to be agreed upon.

As part of TIGER Drylac® product information program, Product Data Sheets are updated periodically. It is recommended to always check for the latest editions on TIGER's website. TIGER's verbal and written recommendations for the use of its products are based upon experience and in accordance with current technological standards. These are given in order to support the buyer or user. They are non-committal and do not create any additional commitments to the purchase agreement. They do not release the buyer from verifying the suitability of TIGER products for the intended application. This Product Data Sheet supersedes all previous Product Data Sheet versions and notes published in relation to this product.

Certified according to
ISO 9001 | 14001

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