



SERIES 38 – SUPER DURABLE

Polyester TGIC super durable powder coating compliant to AAMA 2604 with excellent weather resistance properties for high performance architectural exterior applications.

Typical Applications

- Metal façades.
- Steel constructions.
- Stadium seating and railings.
- Residential windows and doors.
- Patio furniture and garden equipment.
- Railings.
- Playground equipment.
- Agriculture equipment.
- External ship components, communication towers, doors and railings.
- Military camouflage.

Standard Packaging 44 lb (20 kg) box.
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:
30.2 ft²/lb (9.8 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

- Excellent weather resistance.
- Excellent UV-light resistance.
- AAMA 2604* compliant.
- 5 years South Florida exposure.
- Very smooth flow.
- Good storage stability.
- Good yellowing stability.

* AAMA 2604-10 compliance dependent upon the color and/or effect.

Finish and Color

- Smooth flow glossy, approximately 80-95+*.
- Smooth flow semi gloss, approximately 60±5*.
- Smooth flow matte, approximately 20±5*.

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

Available as stock product in smooth glossy, semi gloss and matte in 70 colors. It can be custom matched in limited colors (minimum order quantity and color limitation 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

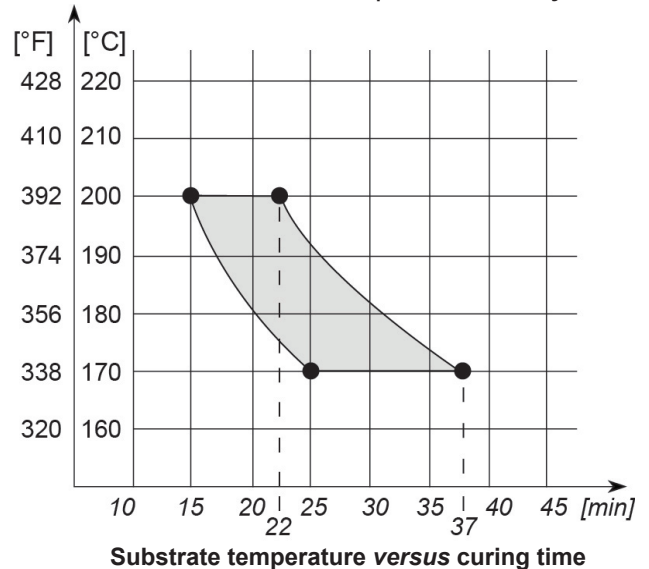
Tribo*

* 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)

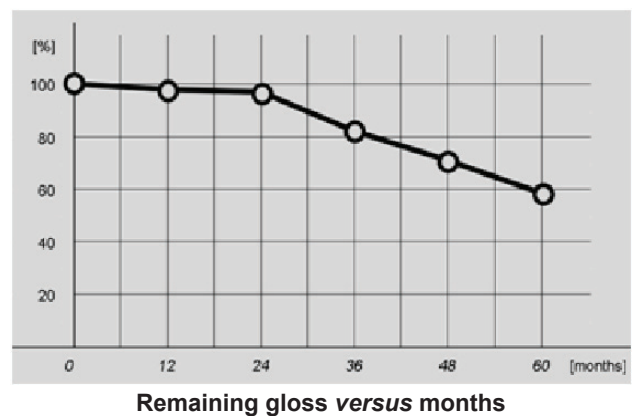
TIGER Drylac® Series 38
Cure Parameters | Smooth Glossy



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

Weather Resistance

Florida exposure at 45° angle
Facing South - RAL 8014



The remaining gloss values that can be expected may vary depending on the original gloss level and color. A reasonable degree of gloss loss and color variation owing to long term UV exposure should be expected.

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Please Note

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.

Any post-mechanical processing of already coated parts, such as sawing, drilling, milling, cutting and bending will result in damage of the coated surface and will subsequently weaken the corrosion protection.

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

Test Results

Results are checked on 1/64 inch (0.7 mm) thick yellow chromated aluminum test panel. 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 38 Smooth Glossy
Film thickness	ISO 2360	2.5-3.5 mils (60-80 µm)
Gloss - 60°	ASTM D523	80-95+
Cross hatch adhesion test	ASTM D3359 Method B	5B
Mandrel bending test	ASTM D522	1/8 inches (3 mm).
Impact test	ASTM D2794	Up to 80 in/lb. Cracking at the perimeter of the concave area but no cracking pick off.
Pencil hardness	ASTM D3363	2H minimum.
Weathering	EN 20105 - A02	≥4
Light fastness	EC ISO 105 - B02	≥Grade7
Humidity resistance 3,000 hours	ASTM D2247	Maximum undercutting 1/32 inches (1 mm).
Acid salt spray resistance 2,000 hours	ASTM G85 Annex A5	Maximum undercutting 1/32 inches (1 mm).

5 years Florida exposure		
Color change	ASTM D2244	≤Δε 5.0 (Hunter).
Gloss retention	ASTM D523	>80%

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

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Special Applications

Objects directly exposed to salt/fog conditions in a marine environment or need heavy corrosion protection must be coated with TIGER Shield® system. Refer to the latest editions of TIGER Drylac® Product Data Sheets.

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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