



Exterior & interior applications
Series 49

**A weather resistant powder coating
for exterior and interior application**

Based on Polyester / TGIC

TIGER Drylac® U.S.A., Inc.
1-800-243-8148

WEST COAST (HQ)
1261 East Belmont St.
Ontario, CA 91761
phone 909 930 9100
fax 909 930 9111
customerservicewest@tigerdrylac.com
www.tigerdrylac.com

EAST COAST
1100 Commons Blvd.
Reading, PA 19605
phone 610 926 8148
fax 610 926 8149
customerserviceeast@tigerdrylac.com

SOUTHEAST
3400 Town Point Drive NW Ste. 140
Kennesaw, GA 30144
phone 770 218 2490
fax 770 218 2495
customerservicese@tigerdrylac.com

SOUTH
339 Exchange Drive
Arlington, TX 76011
phone 817 277 7995
fax 817 277 1931
customerservicesouth@tigerdrylac.com

Typical applications

- Residential windows and doors
- Lawnmowers and garden equipment
- Patio furniture
- Automotive accessories
- Bicycles and motorcycles
- Agricultural machinery
- Sporting goods



Underwriters Laboratories Inc.
(UL) Recognition

Features

- Good weather resistance
- Good mechanical properties
- Good flow
- Good coverage
- Good storage stability
- Underwriter Laboratories recognized component (UL approved)
- Also available in an out gassing forgiving formulation

Finish | Colors

- Smooth glossy 80 - 90+*
- Smooth semi gloss 60 - 65*
- Smooth matte 15 - 25*
- Rough texture glossy
- Rough texture matte
- Fine texture
- Fluorescent
- Holographic colors
- Clear & Glitter & Candy transparent
- Dormant transparent
- Metallic & other special effects

Available from stock in most RAL Colors in a smooth glossy surface. Any other color can be custom matched (minimum order quantities apply).

*Gloss level acc. to ASTM 523 / 60° angle.

Standard Packaging

55 [lb] / 44 [lb] boxes
and 5.0 [lb] Minipack

25 [kg] / 20 [kg] cartons
and 2,5 [kg] Minipack

Specific Gravity (ASTM D792)

approx. 1.2 – 1.8
depending on pigmentation

Theoretical Coverage

at specific gravity 1.5 and film thickness
of 2.5 [mils] / 60 [µm]:
51.5 [sq ft/lb] / 11.1 [m²/kg]
*(also please refer to data sheets
4001 & 4002 in the latest edition)*

Storage Stability

6 months
at no more than 77 °F / 25 °C



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.

	Aluminum	Galvanized Steel	Steel
Degreasing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
¹⁾ Chromating	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
²⁾ Anodizing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
²⁾ Chrome free	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Iron Phosphating	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Zinc Phosphating	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Blasting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
³⁾ Sweeping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	I E A	I E A S	I E S ⁴⁾

- I** interior
- E** exterior
- A** architectural
- S** steel construction

- ¹⁾ acc. to ASTM B 449
- ²⁾ acc. AAMA 2603-02 quality and test regulations
- ³⁾ only for zinc coated parts >45 [µm] / >1.8 [mils]
- ⁴⁾ for a two-coat process / TIGER Shield

Processing

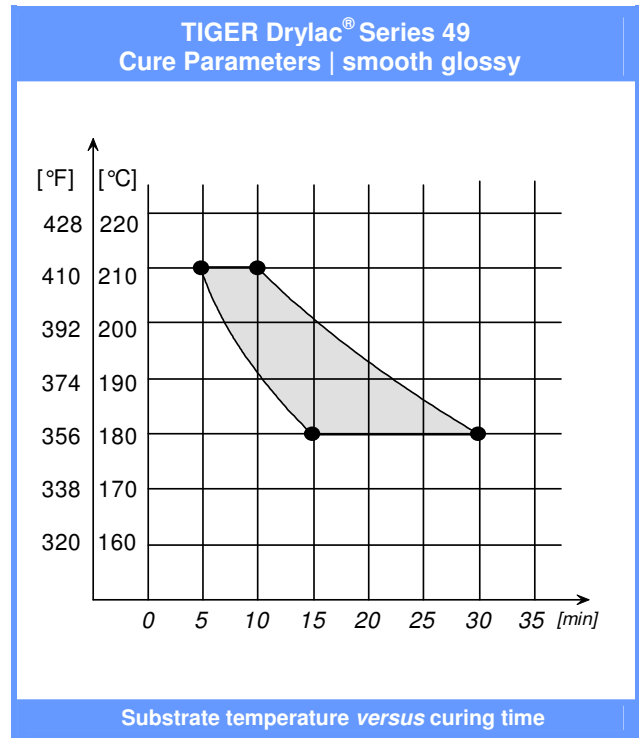
Corona

Tribo*

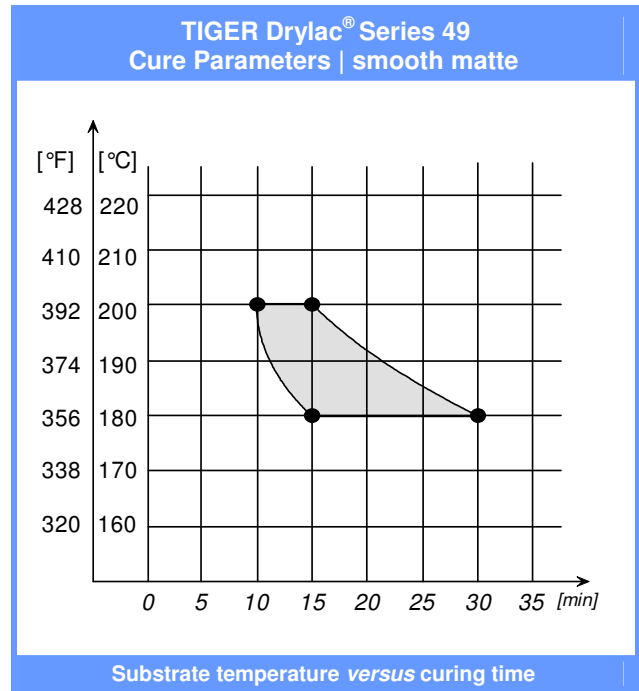
For Tribo / Airstatic Powders please confirm before ordering. Suitability of metallic effects for tribo processing must be verified prior to application. Please consult with the appropriate data sheets in the latest edition.

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

Cure parameters (substrate temperature)



Please observe cure parameters closely since mechanical properties and weatherability will develop before full cross-linking.





Please note

For metallic products please observe TIGER Drylac® „Application guidelines for metallic effect powder coatings“ in the latest edition.

Top coating with a clear exterior grade powder coating over an interior grade powder coating does not produce 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 which may damage the finish. Prior to coating, a suitability test at the applicator is therefore highly recommended.

Please note that generally colors in the red, orange and yellow range may require an increased film thickness to achieve full hiding.

Read and understand the Material Safety Datasheet (MSDS) before using.

Test results

Checked on iron phosphated steel test panel Bonderite B-1000 or equivalent. Cure conditions 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 result	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[°]	<i>ASTM D523</i>	80 – 90+	55 - 65	15 - 25
Cross cut tape test	<i>ASTM D3359 Method B</i>	5B	5B	5B
Mandrel bending test	<i>ASTM D522</i>	≤ 3 [mm] ≤ 1/8 [inches]	≤ 4 [mm] ≤ 5/32 [inches]	≤ 5 [mm] ≤ 3/16 [inches]
Impact test 80 [in/lb.]	<i>ASTM D2794</i>	no appearance of cracks	no appearance of cracks	no appearance of cracks
Pencil hardness	<i>ASTM B3363</i>	2H (minimum)	2H (minimum)	2H (minimum)
Humidity resistance 500 [h]	<i>ASTM D2247</i>	Max. undercutting 1[mm] No blistering	Max. undercutting 1[mm] No blistering	Max. undercutting 1[mm] No blistering
Salt spray resistance 500 [h]	<i>ASTM B117</i>	Max. undercutting 1[mm] No blistering	Max. undercutting 1[mm] No blistering	Max. undercutting 1[mm] No blistering

Cleaning recommendations: Please refer to our data sheet in the latest edition.



Chemical resistance

The required chemical resistance of a powder coating depends among other things on its formulation. Chemical resistance requirements therefore must be considered according to processing conditions and final use of the finished product. This is best already 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 a part of our product information program our product data sheets are periodically updated. Therefore, please check our website for the latest edition. Our verbal and written recommendations for the use of our products are based upon experience and in accordance with present 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 our products for the intended application.

This product data sheet substitutes any and all previous product data sheet and notes for customers published on this subject matter.



Member of the Powder Coating Institute

TIGER Drylac® U.S.A., Inc.
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Ontario, CA 91761
Phone 909 930 9100
Fax 909 930 9111
tiger@tigerdrylac.com
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