APPLICATION GUIDELINES

TIGER Drylac®

Exterior & interior applications
Two Coat Process

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This data sheet is intended as a guide for the applicator, informing the user of parameters, which considerably affect the quality of the finish.

Typical applications

High performance architectural coating
Heavy corrosion protection
Windows and doors
Bicycle and motorcycle parts

Standard Packaging of TIGER Drylac® powder coating	55 [lb] / 44 [lb] boxes and 5.0 [lb] Minipack if available 25 [kg] / 20 [kg] cartons and 2,5 [kg] Minipack if available
Specific Gravity (ASTM D792)	approx. 1.2 – 2.5 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 [m^2/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]

Features

- Improved corrosion protection
- Improved weather resistance
- Improved scratch resistance (Metallic)
- Better chemical resistance (Metallic)
- Improved grip- and touch resistance (Interior)
- Required for Dormant Transparent finishes
- Gives metallic coatings more depth (3D Effect)
- Required for TIGER Shield®

Finish | Colours

Working with two coat coatings requires precision. All guidelines must be observed. Most important is proper communication between coater and the customer, but also between coater and coating manufacturer, to assume that all provisions are given for a quality finish.

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

Cure Conditions

When curing two coat systems, best intercoat adhesion is achieved when pre-gelling the base-coat at 392°[F] / 200°[C] for 2 - 3 [min] prior to applying the second layer. Topcoat then is cured according to applicable product datasheet for the powder coating system used.

If basecoat is a TIGER Drylac® metallic powder coating, a cure time between 50 and 75 % of the curing parameters as described in the applicable product data sheet, should be followed. This will reduce variation within the metallic effect.

Please note: If basecoat is a brilliant TIGER Drylac finish (Mirror Silver, Xtreme Chrome, OFG Chrome) and a Clear Coat is to be applied over this product, the base coat must be cured at 100%, or at least at 75% (of the curing parameters as described in the applicable product datasheet), to achieve the brilliant surface.

When pre-gelling and subsequent curing take place in a directly fired gas oven, inter coat adhesion between the basecoat and the topcoat may suffer due to a variation in gas supply.

Processing

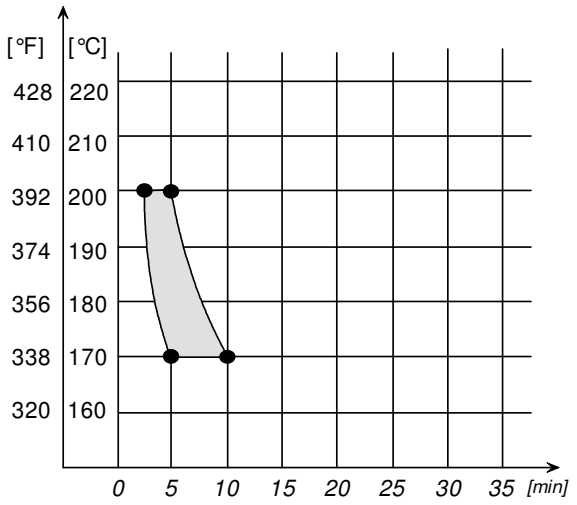
Corona
Tribo*

Better adhesion and reduction of back ionization effect may be achieved, when the basecoat is applied with Corona equipment and the topcoat is applied with Tribo equipment. If topcoat is applied with Corona equipment, the gun voltage (reduction of the field strength) and powder volume should be reduced. Free Ion Collecting Devices will further aid in the application.

Tribo/Airstatic suitability varies by product, please confirm when ordering. A limited amount of metallic products are suitable for Tribo processing, - please verify when ordering. Not all powder coatings are suitable for reclaim/recycling - please inquire when ordering

Cure parameters
(substrate temperature)

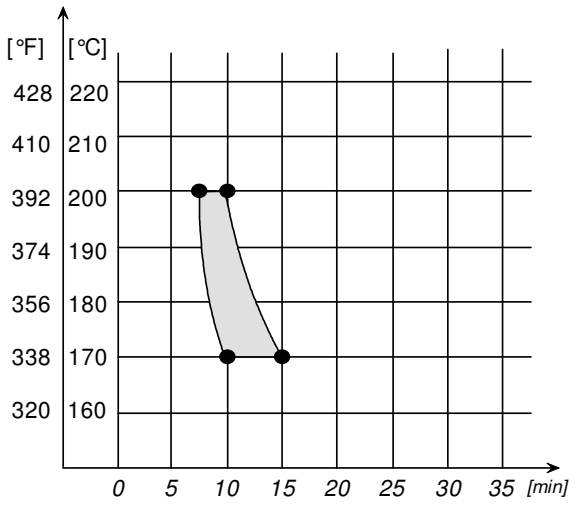
TIGER Drylac® Powder Coating
Cure Parameters | Basecoat Process



Substrate temperature *versus* curing time

TIGER Drylac® Powder Coating
Cure Parameters | Basecoat Process

Required for very brilliant metallic basecoats.



Substrate temperature *versus* curing time

Please note

To avoid possible contaminations no more than 12 hours must elapse between the application of TIGER Drylac® basecoat and any TIGER Drylac® topcoat.

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.

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	TIGER Shield®	Metallic + Clear Topcoat	Recoating smooth glossy
Film thickness		5 – 7 [mils] 60 – 80 [µm]	5 – 7 [mils] 60 – 80 [µm]	5 – 7 [mils] 60 – 80 [µm
Cross cut tape test	*ASTM D3359 Method B*	5B	5B	5B
Mandrel bending test	*ASTM D522*	≤ 5 [mm] ≤ 3/16 [inches]	≤ 5 [mm] ≤ 3/16 [inches]	≤ 5 [mm] ≤ 3/16 [inches]
Impact test 20 [in/lb.]	*ASTM D2794*	no appearance of cracks	no appearance of cracks	no appearance of cracks

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.

POWDER COATED TOUGH™

Member of the Powder Coating Institute

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