

SERIES 69 - interior applications

EPOXY BASED POWDER COATING FOR INTERIOR APPLICATIONS

Typical applications

- laboratory equipment
- machinery parts
- pump housing
- surfaces where increased chemical resistance is required

Product details

Standard packaging in original 44 & 55 lb (20 & 25 kg) boxes and 5 lb (2.5 kg) minipack

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

Theoretical coverage at 2.5 mils (60 µm) film thickness: **51.5 ft²/lb (11.1 m²/kg)**. Refer also to "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) avoid direct and extended exposure to heat

Features

- very good mechanical properties
- excellent chemical resistance
- good resistance to corrosion
- good flow properties
- excellent coverage
- good storage stability

Finish

finish	gloss
smooth <i>glossy</i>	80-95+*
smooth <i>semi-glossy</i>	55-65
smooth <i>flat matte</i>	<25*
metallic and special effects	visual
clear	visual

* Gloss level according to ASTM 523 at 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 Data Sheet. The creation of tolerance samples is recommended.

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).

Pretreatment

The following table reflects the common methods of pre-treatment 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 this page should be observed.

	Aluminum			Galvanized Steel				Steel		
Degreasing	○			○				○		
¹ Chromating	○	○	○	○	○	○	○			
² Pre-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; E = exterior; A = architectural; S = steel

- 1) according to ASTM B 449
- 2) according 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 >1.8 mils (>45 µm)
- 4) for a two-coat process/TIGER Shield

Processing

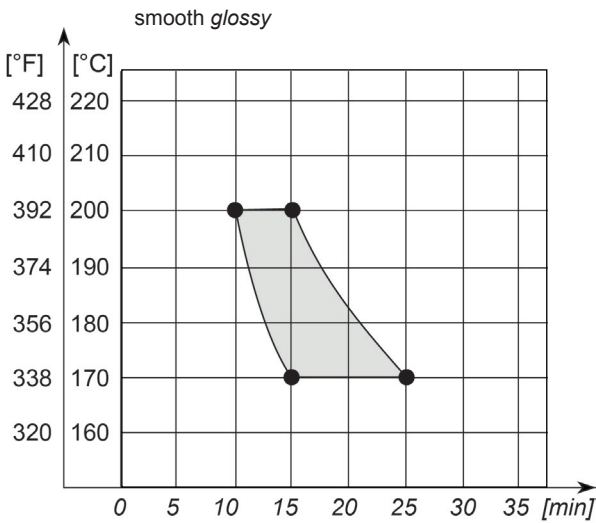
Corona and Tribostatic*

* For Tribostatic powder coatings, confirm before ordering. Suitability of metallic effects for Tribostatic processing must be verified prior to actual application. Please refer to the latest edition of the relevant application guidelines for metallic effect powder coatings.

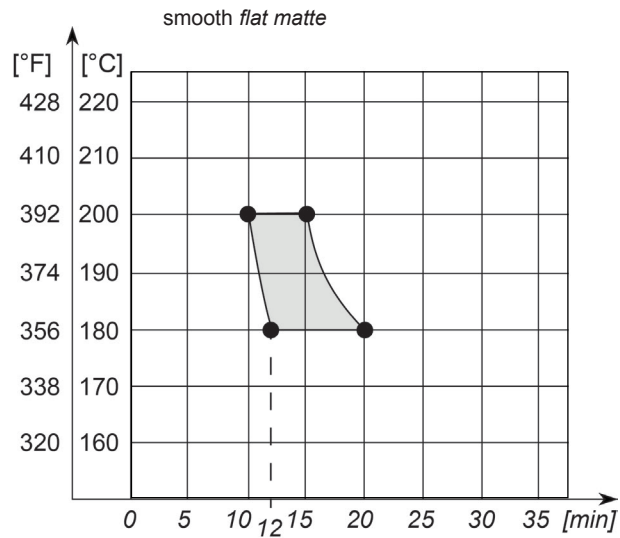
Since not all powder coatings are suitable for recycling/reclaim, please verify before ordering.

Cure parameters

(substrate temperature versus curing time)



substrate temp.	min. curing time	max. curing time
338 °F (170 °C)	15 minutes	25 minutes
392 °F (200 °C)	10 minutes	15 minutes



substrate temp.	min. curing time	max. curing time
356 °F (180 °C)	12 minutes	20 minutes
392 °F (200 °C)	10 minutes	15 minutes

Cure parameters must be closely observed since mechanical properties will develop before full cross-linking.

Test results

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

test method	test	Series 69 smooth glossy	Series 69 smooth flat matte
ISO 2360	recommended film thickness	2.5-3.5 mils (60-80 µm)	2.5-3.5 mils (60-80 µm)
ASTM D523	gloss - 60°	80-95+	<25
ASTM D3359 method B	cross cut tape test 1mm cutting distance	5B	5B
ASTM D522	mandrel bending test cracking of coating	≤1/8 inch (≤3 mm)	≤5/16 inch (≤10 mm)
ASTM D2794	ball impact test cracking of coating	80 in/lb no appearance of cracks down to the substrate	80 in/lb no appearance of cracks down to the sub- strate
ASTM D3363	pencil hardness	3H minimum	3H minimum
ASTM D2247	determination of resistance to humidity 500 hours	maximum undercutting 1/32 inch (1 mm), no blistering	maximum undercutting 1/32 inch (1 mm), no blistering
ASTM B117	salt spray resistance 500 hours	maximum undercutting 1/32 inch (1 mm), no blistering	maximum undercutting 1/32 inch (1 mm), no blistering
ASTM D1308 test 3.1.2	spot test - diesel, cutting oil & motor oil 3 hours	no color change	no color change
ASTM D1308 test 3.1.3	immersion – diesel, cutting oil & motor oil 24 hours	no hardness nor adhesion loss	no hardness nor adhesion loss

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

Please note

Epoxy powder coatings have a tendency to color shift and gloss variations due to changes in curing conditions. It is recommended to closely observe the curing parameters for TIGER Drylac® Series 69.

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".

Please consult the manufacturer before applying any 2-coat systems that feature (i) a primer or e-coat as base coat and (ii) a metallic effect powder coating as a top coat.

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.

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 Safety Data Sheet (SDS) before use.

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.

Disclaimer

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