

SERIES 68 - super durable

POLYESTER SUPER DURABLE POWDER COATING WITH EXCELLENT WEATHER RESISTANCE PROPERTIES FOR HIGH PERFORMANCE ARCHITECTURAL 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

Product details

Standard packaging in original 22 and 44lb (10 & 20 kg) boxes and 5 lb (2.5 kg) minipack

Specific gravity (ASTM D792) approximately 1.2-1.6 g/cm³ depending on pigmentation

Theoretical coverage at 2.5 mils (60 µm) film thickness:
50.8-67.4 ft²/lb (10.4-13.8 m²/kg). Refer also to "Theoretic Powder Coating Coverage Chart"
 version 00-1001 (imperial)
 version 00-1000 (metric)

Storage stability 12 months at no more than 77 °F (25 °C)
 avoid direct and extended exposure to heat

Features

- excellent weather resistance
- excellent UV-light resistance
- very smooth flow
- good storage stability
- good yellowing stability
- TGIC-free
- 3D Metallics

Finish

finish	gloss
smooth <i>glossy</i>	80-95*
smooth <i>semi-gloss</i>	63-77*
smooth <i>matte</i>	20-35*
fine texture <i>matte</i>	-

* 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 custom-matched in limited colors (minimum order quantity and color limitation apply).

Pretreatment

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 of this Product Data Sheet.

	Aluminum			Galvanized Steel			Steel		
Degreasing	○			○			○		
¹⁾ Chromating	○	○	○	○	○	○			
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) acc.to DIN 12487

2) acc. to GSB and QUALICOAT 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 > 45 µm
 4) for a two-coat process TIGER Shield

Processing

Corona and Tribostatic*

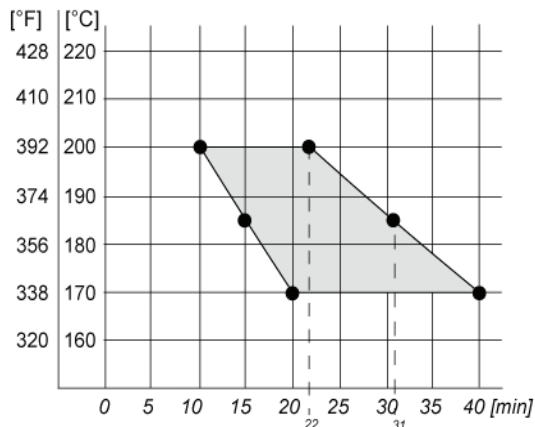
* For Tribostatic powder coatings, confirm before ordering. Suitability of metallic effects for Tribostatic processing must be verified prior to actual application. Please refer to the latest edition of the relevant application guidelines for metallic effect powder coatings.

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

Cure parameters

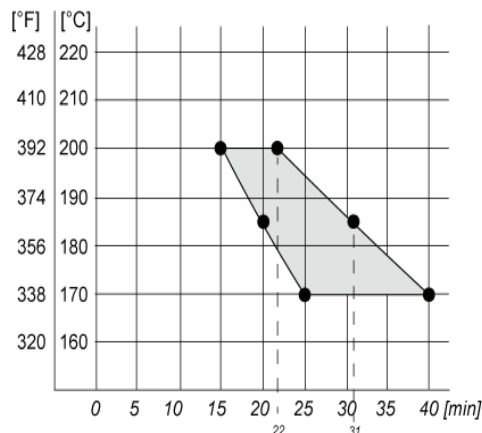
(substrate temperature versus curing time)

smooth *matte*



substrate temp.	min. curing time	max. curing time
392 °F (200 °C)	10 minutes	22 minutes
365 °F (185 °C)	15 minutes	31 minutes
338 °F (170 °C)	20 minutes	40 minutes

smooth glossy | smooth semi-gloss | fine texture matte



substrate temp.	min. curing time	max. curing time
392 °F (200 °C)	15 minutes	22 minutes
365 °F (185 °C)	20 minutes	31 minutes
338 °F (170 °C)	25 minutes	40 minutes

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

Test results

Checked under laboratory conditions on a pretreated aluminum test panel which is 0.7 mm thick. 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.

test method	test	Series 68 smooth glossy smooth semi-gloss smooth matte	Series 68 fine texture matte
ISO 2360	recommended film thickness	2.5-3.5 mils (60-80 µm)	2.75 – 3.55 mils (70-90 µm)
ASTM D3359 method B	cross cut tape test 1mm cutting distance	5B	5B
ASTM D522	mandrel bending test cracking of coating	1/5 inch (5 mm)	1/5 inch (5 mm)
ASTM D2794	ball impact test cracking of coating	up to 80 in/lb cracking at the perimeter of the concave area but no cracking pick off	up to 80 in/lb cracking at the perimeter of the concave area but no cracking pick off
acc. To ISO 16474-3	accelerated weathering, UV-B (313 nm): 600 hours	residual gloss > 50%	residual gloss > 50%
acc. To ISO 16474-2	accelerated weathering, Xenon-Arc: 1000 hours	residual gloss > 90%	residual gloss > 90%
ASTM D523	natural weathering: in Florida 36 months	residual gloss > 50%	residual gloss > 50%
ISO 6270-1	determination of resistance to humidity 1,000 hours	maximum undercutting 1/32 inch (1 mm)	maximum undercutting 1/32 inch (1 mm)
ISO 9227	Acetic acid salt spray resistance 1,000 hours	maximum undercutting 1/32 inch (1 mm)	maximum undercutting 1/32 inch (1 mm)

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

Processing instructions

The guidelines for application (datasheet 1213) must be strictly observed. The Product Data Sheets, Technical Information Sheets and the guidelines for application each in their latest version, available as a download at www.tiger-coatings.com.

Disclaimer

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The Technical Information Sheets and the Terms of Delivery and Payment each in their latest version, available as a download at www.tiger-coatings.com, form an integral part of this Product Data Sheet.