



# General Industry Powder coating for Industrial Application

# SMOOTH MATTE



Powder coatings that combine industrial strength with creative appeal and material awareness — for everyone who designs with impact.

# WHEN THE SURFACE SHOWS ITS ATTITUDE.

# FLEXIBILITY IS OUR PROMISE!





DISCOVER MORE!
Durable
Powder Coating Finishes
in smooth matte





# The future of the coating technology



# Maximum Process Flexibility with Highest Efficiency

With FlexCURE Series 45,
TIGER is redefining the
industrial standard for
modern surface finishing.
Developed for maximum
flexibility, highest efficiency
and improved environmental
compatibility, this innovative
product line offers an
exceptionally wide curing
window – ideal for
demanding industrial
applications.





# Your Benefits at a glance

#### **Energy-efficient production**

Reduced curing temperatures lower energy consumption and CO<sub>2</sub> emissions.

# Compatible with Series 59 and Series 48

Easy system changeover without temperature adjustment.

#### Flexible curing parameters

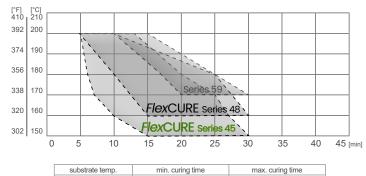
Curing between 150 °C/15 min – 200 °C/5 min object temperature – perfect for components with varying material thicknesses.



One product for different component types – without changes to the oven configuration or process control.

# Durable and robust surface

High resistance to mechanical, chemical and weather-related impacts.



substrate temp.	min. curing time	max. curing time
150 °C	15 minutes	30 minutes
170 °C	7 minutes	25 minutes
200 °C	5 minutes	13 minutes





## Flexibility You Can Count On

FlexCURE Series 45 combines peak technical performance with economic efficiency and more sustainable production – delivering long-lasting coatings and versatile design options. Whether for heavy-duty structures or delicate elements, FlexCURE is always the right choice.



# The future of the coating technology



## Versatile Applications – Indoors and Outdoors

Whether for functional industrial parts or demanding design solutions, *Flex*CURE Series 45 delivers reliable results across a wide range of applications:

#### **Household Appliances**

- Ceiling Panels
- Cladding Elements
- Shop and Shelving Construction
- Office and School Furniture
- Machine Parts
- · Heating, Ventilation, Cooling
- Garage Doors, Steel Fences
- Flower Pots
- Sporting Goods

#### Special Features (on request)

- ESD (Electrostatic Discharge)
- Abrasion Resistant
- OGF (Low Outgassing)
- Thin-film (40-60 μm)
- PFAS n.i.a. (not intentionally added)\*

#### More information

Experience the next generation of powder coatings. Contact our team for more information or color samples.

tca\_rd\_generalindustry\_office@tiger-coatings.com





<sup>\*</sup>Available for smooth surfaces on request



# Technology Highlights

#### Extended curing window

FlexCURE technology enables safe, energy-optimized curing between 150– 200°C. This makes Series 45 ideal for components with complex geometries or high thermal mass.

# Process compatibility without adjustments

Thanks to overlapping curing parameters, Series 45 is fully compatible with TIGER Drylac® Series 59 and 48. Switching between coating systems is possible without any modification to oven settings.

#### Sustainability that pays off

Lower curing temperatures mean reduced energy usage – lowering operating costs and decreasing the ecological footprint.





RAL 7021 Black Grey 45/70013



RAL 9005 Jet Black 45/80005



RAL 7035 Light Grey **45/70017** 









## Matte Finish – Maximum Impact

At launch, *Flex*CURE Series 45 is available in a matte surface – robust, durable and aesthetically modern. Additional gloss levels such as glossy, semi-gloss, fine texture and rough texture will be introduced gradually.

#### High-performance protection

The series offers lasting resistance to mechanical stress, weathering, and chemical exposure—ideal for heavy-duty industrial structures and technical components with high protection requirements.

# Design variety for indoor and outdoor use

The wide range of colors and matte finish create a high-quality look that is also impressive in designer furniture and other interior furnishings, as well as outdoor applications.

#### Conclusion

TIGER Drylac® FlexCURE Series 45 offers a versatile, high-performance powder coating solution for long-lasting protection and aesthetic quality—whether for solid industrial components or delicate design elements in indoor and outdoor applications. Choose flexibility, efficiency, and sustainability for your production processes.



RAL 9016 Traffic White **45/10010** 



RAL 9003 Signal White **45/10016** 





RAL 9010 Pure White **45/10013** 



# Product FAQ's

# Can I maintain the previous curing conditions with the *Flex*CURE Technology Series 45?

Our FlexCURE technology was developed with a greatly expanded and overlapping curing window. It enables flexible curing within a temperature range of 150°C to 200°C without the need to adjust existing oven settings.

How does the *Flex*CURE Technology differ from the previous TIGER Drylac® Series 59?

During the development of FlexCURE Series 45, the binder systems used were newly formulated and further developed. This significantly expanded the curing window from 150°C/15min – 200°C/5min, while maintaining consistent product performance. The functional properties, including mechanical strength, chemical resistance, and UV/weather resistance, remain unchanged compared to Series 59.

## Is color consistency maintained with previous series?

The colors of *Flex*CURE Series 45 are matched to the previous colors of TIGER Drylac® Series 59. As before, production-related batch variations are possible, which are within industry-standard tolerances.

## Are there visual differences at different curing temperatures?

Yes, within the chosen curing window, there may be slight, familiar variations in color tone and gloss.

Are FlexCURE Series 45 products application-compatible with Series 59?
Laboratory tests and application trials

Laboratory tests and application trials conducted with selected customers have demonstrated technical compatibility of FlexCURE Series 45 matte with the previous Series 59 matte. Mixed applications are generally possible, but plant or environmental influences may cause varying results. Therefore, cleaning the equipment when changing products – as with any color change – is recommended.

Can *Flex*CURE Series 45 products be processed directly in alternation with products from other manufacturers?

Yes; the transition to *Flex*CURE Series 45 does not affect compatibility with third-party products. As a rule, thorough cleaning of the application equipment should be carried out as usual.

Is there an EPD certificate (Environmental Product Declaration) for Series 45?

An EPD (Environmental Product Declaration) is available for *Flex*CURE Series 45. You can find it at the following link:





## When will the transition to *Flex*CURE Series 45 matte take place?

From the end of September 2025, FlexCURE Series 45 smooth/matte will replace the previous industrial qualities. Series 45 matte will be available in selected RAL colors from stock. Special products will be exclusively developed in Series 45 matte from this date on.

## What are the advantages of using Series 45 matte?

Flexible curing parameters: Curing between 150°C/15min – 200°C/5min object temperature – perfect for components with different material thicknesses.

**Energy-efficient production:** Reduced curing temperatures lower energy consumption and CO<sub>2</sub> emissions.

**Process security & efficiency:** One product for various component types – without oven conversions.

Compatible with Series 59 & Series 48: Easy system change without temperature adjustment.

**Robust and durable surface:** High resistance to mechanical, chemical and weather influences.

## How will ordering be handled in the future?

Orders for Series 59 matte will automatically be converted to Series 45 matte, provided the ordered color is also a standard product in Series 45 matte. If the Series 45 matte product is not stocked as standard, we will fulfill this order from our standard Series 48 matte program. Upon request and for project-specific needs, Series 59 matte can still be obtained as a special product until further notice.

Laboratory developments or customerspecific needs will be handled exclusively in Series 45 matte from the end of September 2025.

## What are typical applications for Series 45 matte?

The new FlexCURE Series 45 matte offers a wide range of applications for indoor and outdoor use. Whether for functional industrial components or sophisticated design solutions – FlexCURE Series 45 delivers reliable results in numerous application areas:

- Household Appliances
- Ceiling Panels
- Cladding Elements
- Shop and Shelving Construction
- Office and School Furniture
- Machine Parts
- Heating, Ventilation, Cooling
- Garage Doors, Steel Fences
- Flower Pots
- Sporting Goods

# What are thin-film powder coatings and what advantages do they offer in industrial applications?

Thin-film powder coatings are specially developed coatings that produce a uniform appearance even at low layer thicknesses (below 60 µm). They reduce material usage and costs without compromising surface quality.

#### Typical advantages are:

- Resource-saving:
   Less paint consumption per component.
- Cost-efficient:
  Shorter coating times and lower energy
- Technically reliable:
   Uniform surfaces and good adhesion.
- Sustainable:
   Less material usage means less waste.

Please Note: For white or very light colors, the opacity may be limited below 60 µm; suitability must be checked independently.



## **Technical** Information

TIGER Drylac® Series 45 powder coating for industrial exterior, interior applications and steel construction (non-architectural) **Base: Polyester** 

#### Typical application

- Household Appliances
- Ceiling Panels
- Cladding Elements
- Shop and Shelving Construction
- Office and School Furniture
- Machine Parts
- Heating, Ventilation, Cooling
- Garage Doors, Steel Fences
- Flower Pots
- Sporting Goods

#### **Product details**

#### Standard Packaging:

In original boxes of 20 kg each as well as in Minipacks of 2.5 kg each

#### Specific Gravity (ISO 8130-2):

1.2-1.7 g/cm3 depending on pigmentation **Theoretical Coverage:** 

at 60 µm film thickness: 9.8-13.8 m2/kg depending on specific gravity (please see also Information Sheet no. 1072 - latest edition)

#### **Storage Stability:**

Use before: see printed date on product label; under dry conditions at no more than 25 °C, avoid direct and extended heat exposure (The shelf life of custom made blanket orders or other stock agreements which by their nature are stored over longer periods is determined by the original production date.)

#### **Features**

- good weather resistance
- · good mechanical properties
- good flow properties
- good storage stability

#### **Finish**

#### smooth matte gloss 20 - 35\*

\* Gloss level acc. to ISO 2813/60° 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 datasheet. The creation of tolerance samples is urgently recommended)

#### Pre-treatments

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.

	Al min		Ste	eel	Galva Ste	
1)2)Chromating	0	0			0	0
<sup>2)</sup> Pre-Anodizing	0	0				
<sup>2)</sup> Chrome free	0	0			0	0
Iron Phosphating			0			
Zinc Phosphating			0	0	0	0
Blasting			0	0		
3) Sweeping					0	0
Degreasing	0		0		0	
	1	Е	ı	E <sup>4)</sup>	1	Е

Application:

I = interior: E = exterior

- acc.to DIN 12487
- acc. to GSB and QUALICOAT quality and test regulations.
- only for zinc coated parts > 45  $\mu m$  for a two-coat process TIGER Series 270 / 271 / 272 / 273



#### Special Features (on request)

- ESD (Electrostatic Discharge)
- Abrasion Resistant
- OGF (Low Outgassing)
- Thin-film (40-60 μm)
- PFAS n.i.a. (not intentionally added)\*

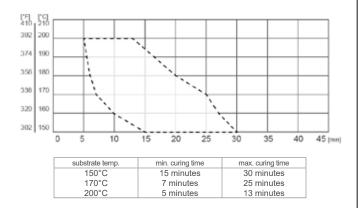
#### Application | Processing

Corona; Tribostatic\* available upon inquiry

\* Suitability for tribo processing must be verified prior to actual application. Please consult with the relevant application guidelines for metallic effect powder coatings, latest edition.

#### Cure parameters

#### Smooth matte



Please observe cure parameters closely since mechanical properties will develop before full cross-linking!

#### Product overview smooth matte

45/10010 RAL 9016

45/10009 RAL 9016 thin film 40-60 µm\*

45/10013 RAL 9010

45/10019 RAL 9010 thin film 40-60 μm\*

45/10016 RAL 9003

45/10021 RAL 9003 thin film 40-60 μm\*

45/70008 RAL 7016

45/70018 RAL 7016 thin film 40-60 µm\*

45/70013 RAL 7021

45/70019 RAL 7021 thin film 40-60 µm\*

45/80005 RAL 9005

45/80008 RAL 9005 thin film 40-60 μm\*

45/70017 RAL 7035

45/70005 RAL 7035 thin film 40-60 μm\*

\*Note: With white or very light colors, the coverage may be limited below 60 µm; suitability must be checked independently.

<sup>\*</sup>Available on smooth surfaces upon request



# Technical Information

TIGER Drylac® Series 45 powder coating for industrial exterior, interior applications and steel construction (non-architectural) Base: Polyester

#### 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.



#### **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, are available for download on www.tiger-coatings.com.

#### Test method Test

#### Series 45 smooth matte

ISO 2360	film thickness recommended	60-80 µm
ISO 2813	gloss - 60°	20-35
ISO 2409	cross cut test/adhesion 1 mm cutting distance	0
ISO 1519	mandrel bending test cracking of coating	≤ 6 mm not permitted
ISO 1520	cupping test cracking of coating	≥ 5 mm not permitted
ASTM D 2794	ball impact test cracking of coating	20 Inch/pound not permitted
ISO 6270-1	determination of resistance to humidity 500 h	delamination around scribe max. 1 mm
ISO 9227	salt spray test 500 h	delamination around scribe max. 1 mm
acc. to EN ISO 16474-3	accelerated weathering UV-B (313 nm) 200 h	residual gloss ≥ 50 %
EN 2815	impression hardness	≥ 80
ASTM D 3363	pencil hardness	Н



#### Disclaimer

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. We warrant that our products are free of flaws and defects to the extent as stipulated in our Terms of Delivery and Payment. As a part of our product information program each of our Product Data Sheets are periodically updated, so that the latest version shall prevail. Therefore, please visit the download area of www.tiger-coatings.com to make sure you have the most current version of this Product Data Sheet. The information in our Product Data Sheets is subject to change without notification.

This Product Data Sheet substitutes any and all previous Product Data Sheets and notes for customers published on this subject matter and is only intended to give a general product overview. Please request specific information for products outside of our standard product list (latest version).

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



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