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IGP Powder Coatings

TDS IGP-DURA®vent 5103A-C1|240424|v1.2

This application-related advice is given to the best of our knowledge. However, this information is non-obligatory and does not exempt you from carrying out your own tests. Application, use and processing of these products are beyond our control and are therefore on your responsibility.

Consult the Safety Data Sheet prior to use. Article-specific safety data sheet and comprehensive risk management measures available at: **igp-powder.com**

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Technical data sheet

IGP-DURA®vent 5103A-C1

Matt powder coating with a very good finish and excellent corrosion protection for use on outgassing substrates.



Characteristics

- Matte
- Smooth finish
- Uni colors
- Standard façade quality, 1 year Florida > 50% residual gloss
- Electric. discharging
- Degassing optim.



Powder properties

Particle size:

Solids:

Density:
Suitability for storage:
< 3.94 mil
> 99 %
10.85 lb/gal-13.35 lb/gal
min. 18 months at ≤ 77 °F
in an unopened original container
Color tones:
On request



Processing

Pre-treatment

The substrate must be free from oil, grease and oxidation products. The pretreatment depends on the type of substrate and the corrosion protection to be achieved. We recommend the following pretreatments:

Aluminum

- Chromating according to DIN EN 12487
- Pre-anodization
- Chrome-free pretreatment according to GSB International and QUALICOAT specifications

Steel

- Zinc phosphating

Galvanized steel

- Zinc phosphating
- Chrome (III) passivation
- Chromating according to DIN EN 12487

The suitability of the pretreatment method used is generally to be tested by the coater in advance with appropriate test methods. The minimum requirement for aluminium substrates / galvanised steel components is to carry out a boiling water test with a subsequent cross-cut adhesion and tape test. We refer to the guidelines of the GSB International, Qualicoat and Qualisteelcoat certifications. For further information: see also our special leaflet on pre-treatment (IGP-TI 100).

Coating devices

All conventional electrostatic systems with corona charging. For the construction and operation of powder coating plants, the following regulations must be complied with: ATEX RL 2014/34/EU, EN 50177, DIN EN 16985.

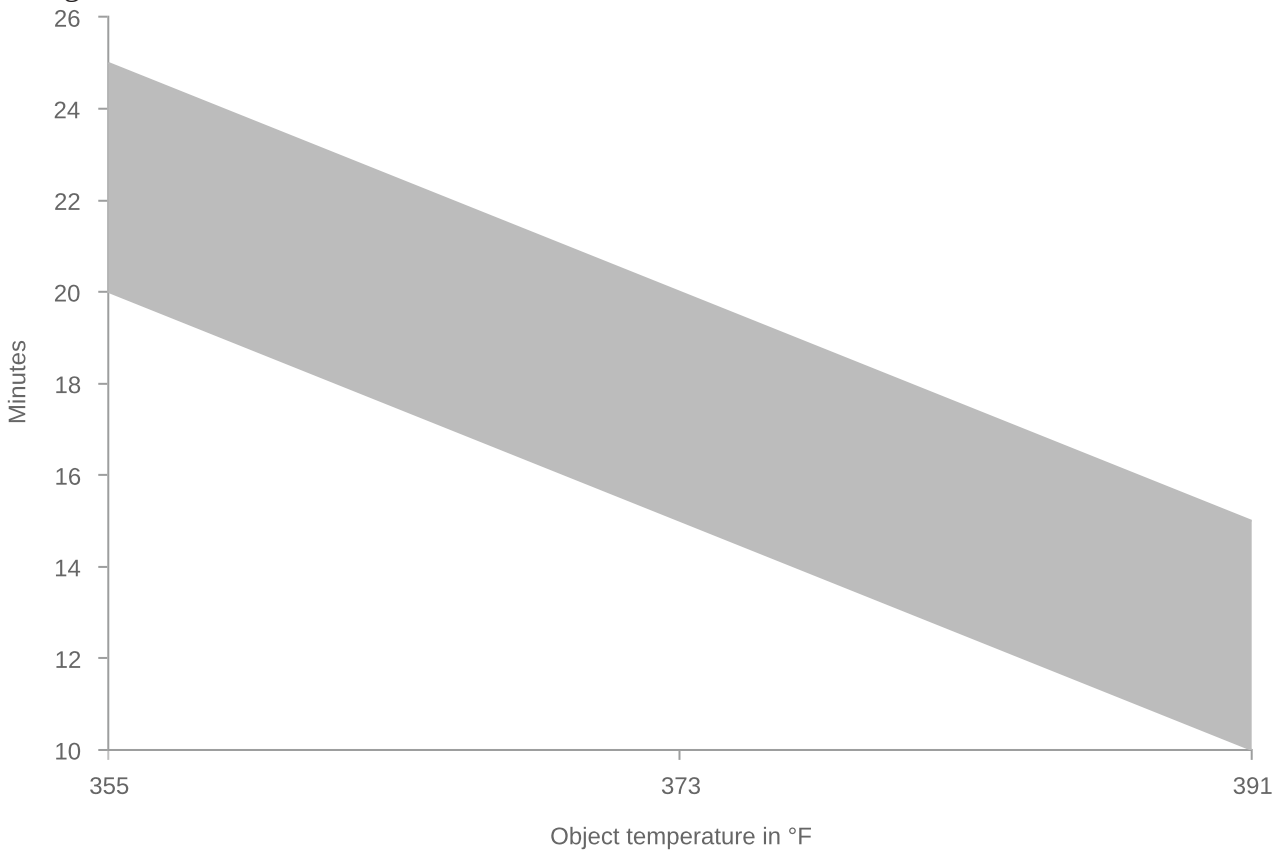
Recommended film thickness

2.36 mil - 3.15 mil

A homogeneous coating result with textured coatings or article- and color-specific differences in hiding power may require higher coating thicknesses. The corresponding processing guidelines

must be observed. For a pre-calculation of the required powder coating quantity, the necessary coating thickness must be determined for each article.

Curing conditions



T _{Object}	t _{min}	t _{max}
356 °F	20 minutes	25 minutes
374 °F	15 minutes	20 minutes
392 °F	10 minutes	15 minutes

In order to determine ideal curing conditions, we recommend practical trials with the object in question and curing oven.

Reclaimability

Small portions of recycled powder can be added, automatically if possible, to the fresh powder. Important: Keep overspray to an absolute minimum.



Film properties

Tested on
 Substrate:
 Steel, 0.5 mm
 Film thickness:
 2.36 mil - 3.15 mil
 Object temperature:
 374 °F, 15 min.

Appearance
Gloss level
18-32 R'/60°
DIN EN ISO 2813 2015-02
Mechanical tests
Cross-cut adhesion test
Gt 0
DIN EN ISO 2409 2020-12
Mandrel bending test
≤ 5 mm
DIN EN ISO 1519 2011
Impact test
≥ 20 inchp.
ASTM D 2794 1993
Erichsen cupping
≥ 5 mm
DIN EN ISO 1520 2007-11
Buchholz hardness
≥ 80
DIN EN ISO 2815 2003-10
Weathering tests
1 year Florida, 5° south
> 50 % residual gloss
DIN EN ISO 2810 2021-01
Xenon-arc lamps, 10000h
> 50 % residual gloss
DIN EN ISO 16474-2 2014-03
Corrosion tests
Natural salt spray test, 720h on HDG steel, chemical pretreatment
No infiltration, no blisters.
DIN EN ISO 9227 2017-07
Condensation water test, 480h on HDG steel, chemical pretreatment
No infiltration, no blisters.
DIN EN ISO 6270-2 2018-04
Chemical tests
Mortar resistance
Easily removable after 24h with no residues.
ASTM D 3260 2001
Additional properties
electrostatic discharge resistance
TI 101
DIN EN 61340-2-3 2017-05



More information

Packaging
20 kg cardboard box with inserted antistatic PE liner

Overcoating suitability

Preliminary tests are mandatory for overcoating painted surfaces.

Printing and glueing

Preliminary tests are mandatory for printing and glueing of painted surfaces.

Protection of coated parts

Coated parts should be packed after cooling with suitable materials without plasticizers. They should be stored protected from the weather to avoid the formation of condensation and thus water spots on the coating.

Cleaning

The coated parts must be cleaned according to the directives RAL-GZ 632 or SZFF 61.01.

Paint removal and disposal

After use, coated goods should be supplied to the normal recycling process. The disposal methods for sludges or residual powders must be observed in accordance with the local official provisions whilst taking Waste Code "080201 Coating Powder Wastes" in accordance with the European Waste Catalogue into consideration.