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IGP Powder Coatings

TDS IGP-DURA®mix 3305A-T0|240424|v1.1

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®mix 3305A-T0

Silk-matte thin-film powder coating with smooth finish in a wide range of colors.



Characteristics

- Silk matte
- Smooth finish
- Uni colours
- Indoor quality
- Thin film



Powder properties

Particle size:

Solids:

Density:

Suitability for storage:

< 100 µm
> 99 %
1.3 kg/l-1.6 kg/l
min. 24 months at ≤ 25 °C
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:

Aluminium

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

Steel

- Zinc phosphating
- Iron phosphating

Galvanised 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 commercially available electrostatic systems, both corona and tribo charge systems.

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.

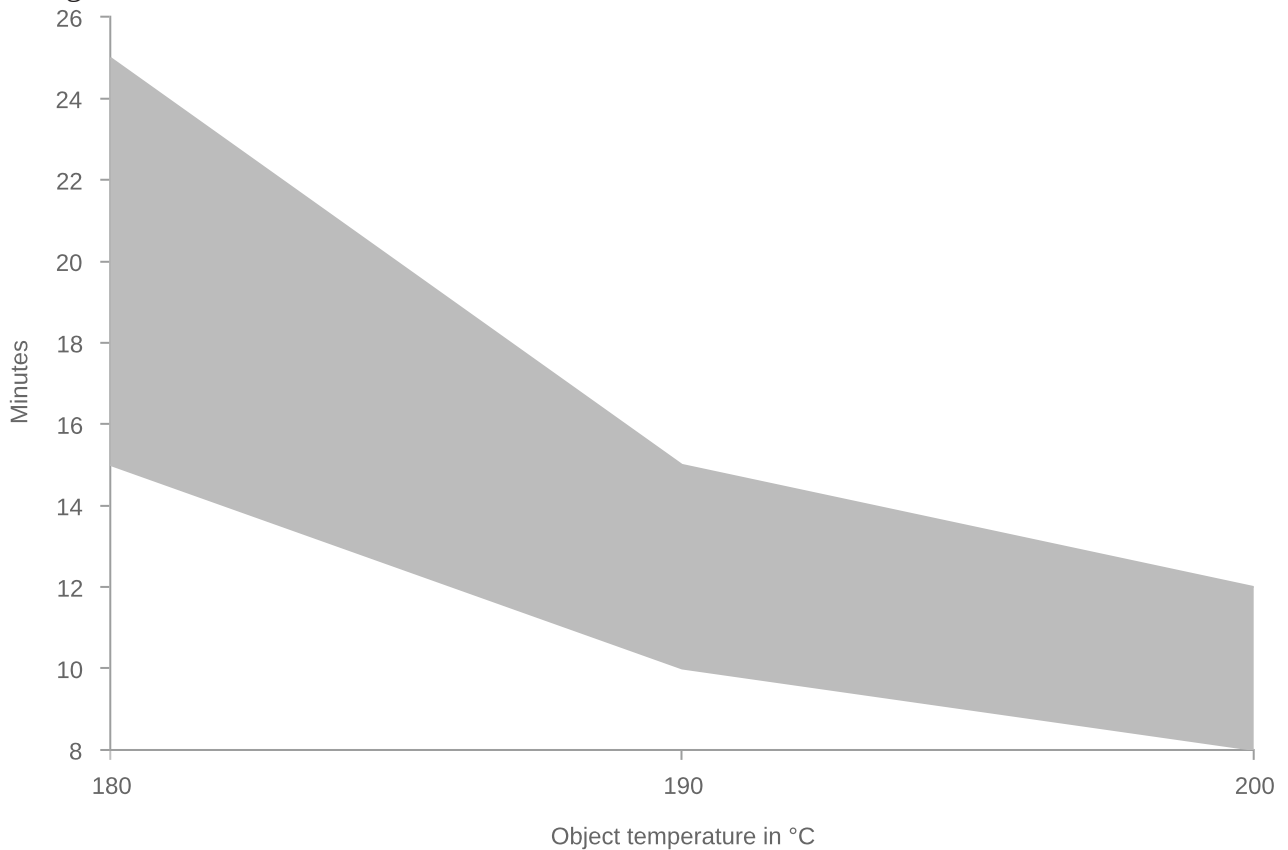
Recommended film thickness

50 µm - 60 µm

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}
180 °C	15 minutes	25 minutes
190 °C	10 minutes	15 minutes
200 °C	8 minutes	12 minutes

In order to determine ideal curing conditions, we recommend practical trials with the respective object 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, 0.5mm

Tested colours:

RAL 9010

Film thickness:

50 µm - 60 µm

Object temperature:

190 °C, 10 min.

Appearance

Gloss level

45-55 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

≥ 10 inchp.

ASTM D 2794 1993

Erichsen cupping

≥ 5 mm

DIN EN ISO 1520 2007-11

Buchholz hardness

≥ 80

DIN EN ISO 2815 2003-10

Corrosion tests

Condensation water test, 500-1000h*

No infiltration, no blisters. *depending on pretreatment

DIN EN ISO 6270-2 2018-04

Natural salt spray test, 500-1000h*

No infiltration, no blisters.

*depending on pretreatment.

DIN EN ISO 9227 2017-07

Chemical tests

Acids and alkalis

Good resistance to many dilute acids and alkalis.

Organic solvents

Limited resistance to organic solvents.



Further information

Packaging

20 kg cardboard box with inserted antistatic PE liner

500 kg cardboard container with 25 antistatic PE-liners each 20kg

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.