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IGP Powder Coatings

TDS IGP-RAPID®complete 871TE-I1|240424|v2.1

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-RAPID®complete 871TE-I1

Matte, finely structured powder coating with optimized IR reflection on a polyester resin base, weather-resistant and highly reactive.



Characteristics

- Deep matte
- Fine texture
- Pearl mica
- Industrial outdoor quality
- IR-optimized



Powder properties

Particle size:

Solids:

Density:

Suitability for storage:

< 100 µm

> 99 %

1.3 kg/l-1.6 kg/l

min. 6 months at ≤ 15 °C

min. 12 months at ≤ 5 °C

min. 24 months at ≤ -20 °C

in an unopened original container

Color tones:

RAL Metallic and individual metallic colors on request



Processing

Pre-treatment

Precoated metal should be degreased and sanded to ensure intercoat adhesion.

The suitability of the substrate and pretreatment method used is generally to be tested by the coater in advance with appropriate test methods.

The minimum requirement 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.

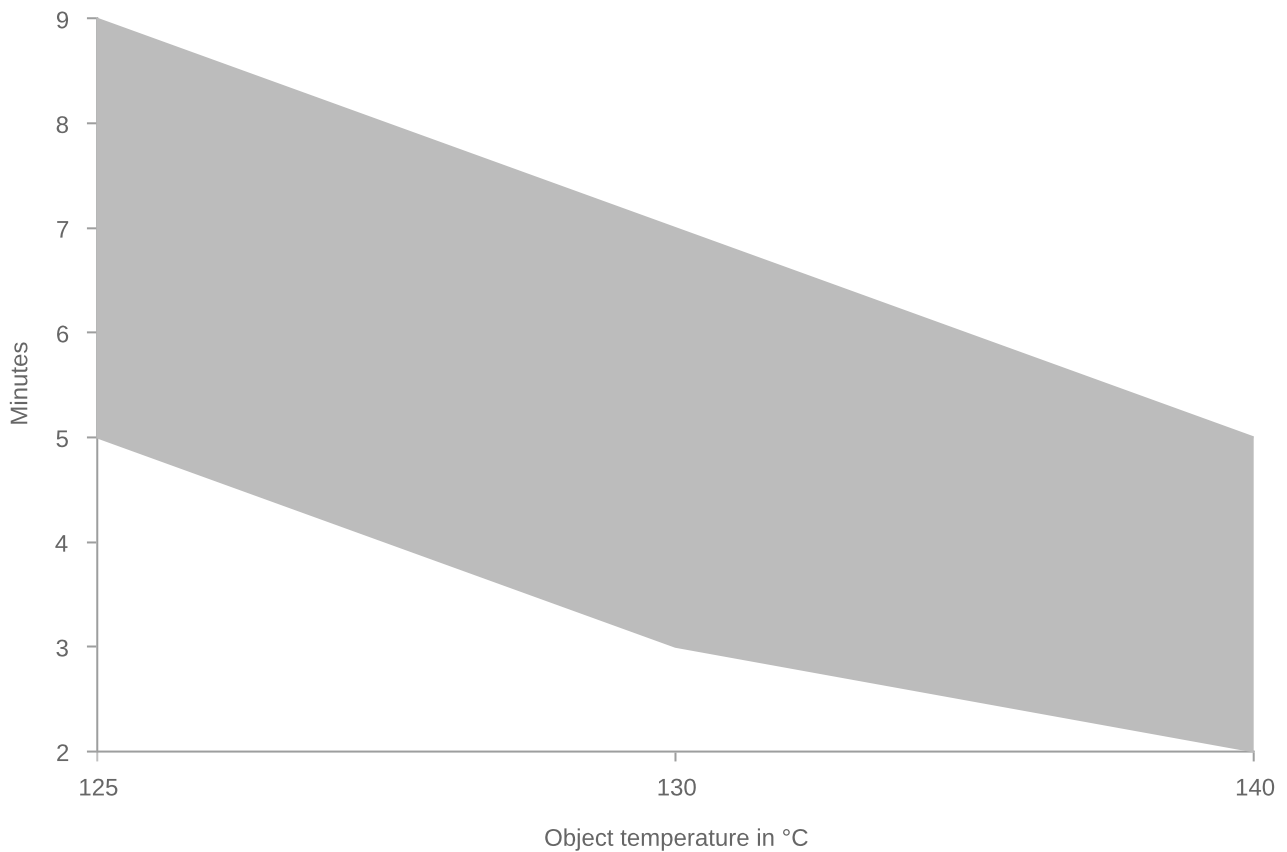
Recommended film thickness

80 µm - 120 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}
125 °C	5 minutes	9 minutes
130 °C	3 minutes	7 minutes
140 °C	2 minutes	5 minutes

Due to the limited thermal conductivity, the use of infrared- (electric / gas catalytic) or convectional - infrared combined ovens is recommended.

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

The curing conditions must be carefully controlled. Powder coatings cured outside the curing window may show deficiencies in the film flexibility. Our technical customer service will advise you.

Reclaimability

Small portions of recovered powder can be added, automatically if possible, to the fresh powder.

Important: Keep overspray to an absolute minimum. Processing instruction VR201.1 must be observed.



Film properties

Tested on

Substrate:

Coil-coated galvanized steel

Film thickness:

80 µm - 120 µm
Object temperature:
130 °C, 3 min.
Appearance
Gloss level
4-14 R'/60°
DIN EN ISO 2813 2015-02
Mechanical tests
Cross-cut adhesion test
Gt 0
DIN EN ISO 2409 2020-12
Weathering
1 year Florida, 5° south
> 50 % residual gloss
DIN EN ISO 2810 2021-01
QUV/SE-B-313, 300h
> 50 % residual gloss
DIN EN ISO 16474-3 2014-03
Xenon-arc lamps, 10000h
> 50 % residual gloss
DIN EN ISO 16474-2 2014-03
Corrosion tests
Condensation water test, 1000h
Gt ≤ 1
DIN EN ISO 6270-2 2018-04
Natural salt spray test, 1000h
Gt ≤ 1
DIN EN ISO 9227 2017-07
Chemical tests
Acetone test
2N Level 2
IGP AA341.58



Further information

Packaging

20 kg cardboard box with inserted antistatic PE liner

Overcoating

For repainting slight sanding is necessary.

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.

Technical Information IGP-TI 106 must also be observed when dealing with pearl mica effects.

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.