



32

IGP Powder Coatings

TDS IGP-DURA®guard 321ME-A1|240424|v1.3

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**

IGP Powder Coatings

TDS IGP-DURA®guard 321ME-A1|240424|v1.3

Technical data sheet

IGP-DURA®*guard* 321ME-A1

Matte, anti-graffiti powder coating with fine structure and good general resistances for interior application.



Characteristics

- Matte
- Fine texture
- Pearl mica
- Mica
- Indoor quality
- Antigrffiti



Powder properties

Particle size:

Solids:

Density:
Suitability for storage:
< 100 µm
ca. 99 %
1.3 kg/l-1.6 kg/l
min. 18 months at ≤ 25 °C
in an unopened original container
Color tones:
RAL Metallic and individual metallic colors 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 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

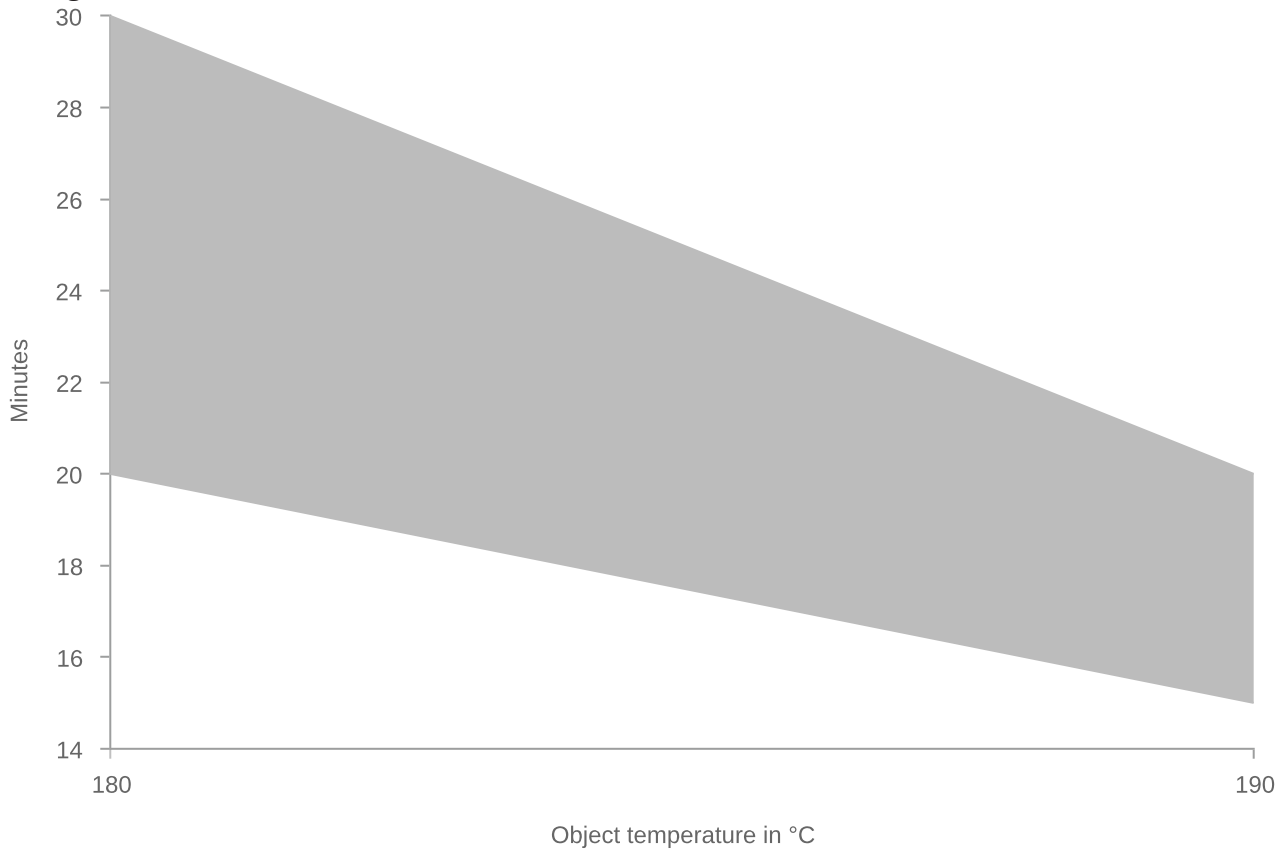
60 µm - 80 µm

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	20 minutes	30 minutes
190 °C	15 minutes	20 minutes

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

Due to e-caprolactam emissions during the curing process it is necessary to take care for a good ventilation to comply with the permitted occupational exposure limits concentrations.

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:

Aluminum, 0.8mm, AQT 36

Film thickness:
60 µm - 80 µm
Object temperature:
190 °C, 15 min.
Mechanical tests
Cross-cut adhesion test
Gt 0
DIN EN ISO 2409 2020-12
Mandrel bending test / Tapetest
≤ 8 mm
DIN EN ISO 1519 2011
Impact test / Tape test
≥ 10 inchp.
ASTM D 2794 1993
Erichsen cupping / Tape Test
≥ 3 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
Organic solvents
Outstanding resistance to organic solvents
Cleaning
Easy2clean properties allow efficient removal of
contamination by commercially available cleaning agents
and/or disinfectants



Further information

Packaging
20 kg cardboard box with inserted antistatic PE liner
400 kg cardboard container with 20 antistatic PE-liners each 20kg
500 kg cardboard container with 25 antistatic PE-liners each 20kg
Overcoating
For overcoating anti-graffiti powder coatings, sanding and preliminary tests are mandatory.
Printing and glueing
Preliminary tests are mandatory.
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.

Graffiti removal

The following procedure should be observed when removing graffiti:

- The contact time of the graffiti with the surface must be kept as brief as possible
- Preliminary tests to select a suitable graffiti remover
- Thorough rinsing of the cleaned areas with water
- The contact time of the graffiti remover with the surface must be kept as brief as possible

IGP recommendation:

- Elite 007 graffiti remover from Crous Chemicals GmbH
- Socostrip T4210P from Socomore
- Bonderite S-ST 1302 and Bonderite C-MC 400 from Henkel AG
- or a different non-abrasive cleaner

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.