IGP Powder Coatings
TDS IGP-DURA®pol 6809A-G0 care|240424|v1.3

Technical data sheet

IGP-DURA®*pol* 6809A-G0 care

Glossy low-temperature powder coating with smooth finish, ideal for indoor and outdoor applications. Finished with biocides.

Characteristics

- Gloss
- Smooth finish
- Uni colours
- Industrial outdoor quality
- Contains biocides

Material approvals

- Protected by Sanitized®

Powder properties

Particle size:
Solids:
Density:
Suitability for storage:
< 100 µm
> 99 %
1.5 kg/l-1.6 kg/l
min. 12 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

Galvanised steel

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

For improved corrosion protection for applications on steel / galvanised steel, the use of corrosion protection primer IGP-KORROPRIMER 18 is recommended.

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.

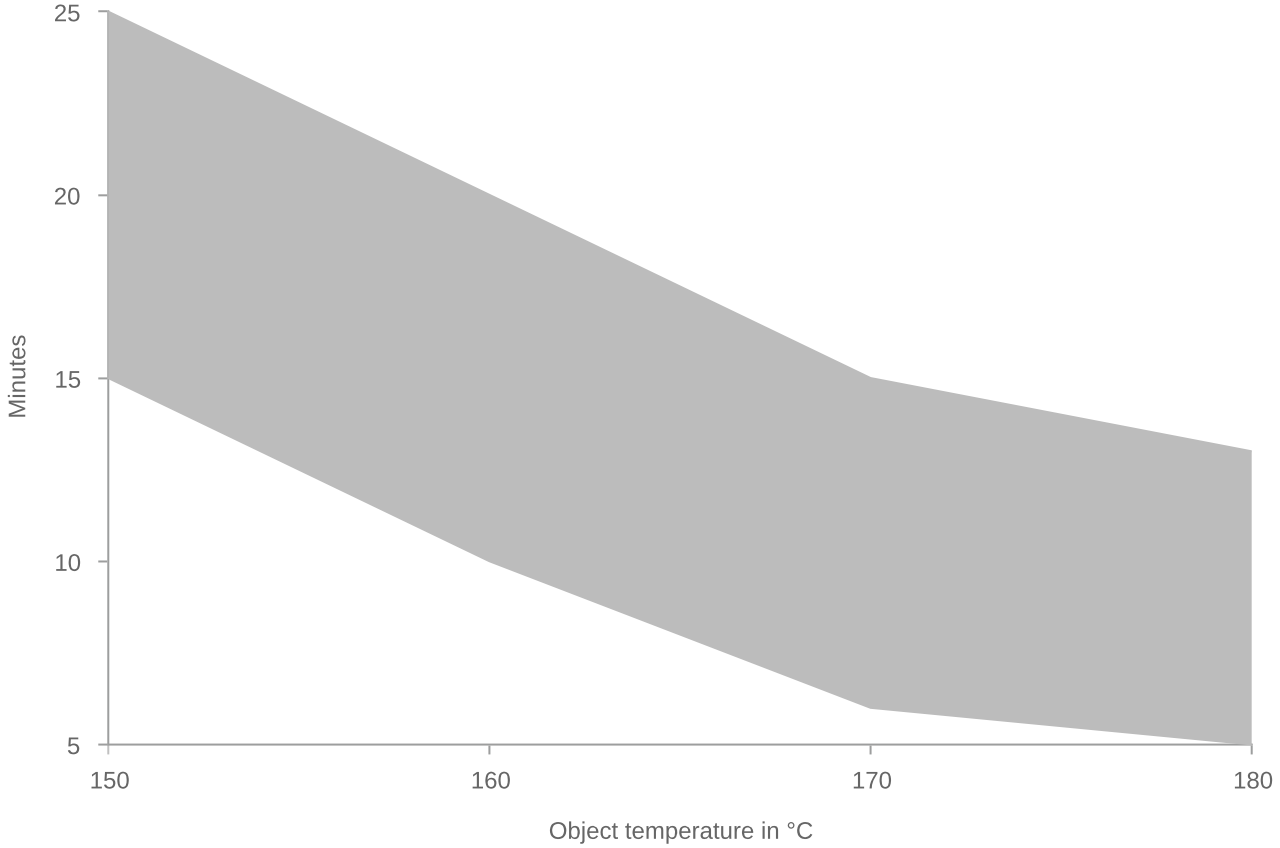
Recommended film thickness

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}
150 °C	15 minutes	25 minutes
160 °C	10 minutes	20 minutes
170 °C	6 minutes	15 minutes
180 °C	5 minutes	13 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:
Aluminum (AlMg1), 0.8mm, chromated
Film thickness:
60 µm - 80 µm
Object temperature:
160 °C, 10 min.
Appearance
Gloss level
85-100 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
Corrosion tests
Condensation water test, 1000h
No infiltration, no blisters
DIN EN ISO 6270-2 2018-04
Natural salt spray test, 1000h
No infiltration, no blisters
DIN EN ISO 9227 2017-07
Chemical tests
Acids and alkalis
Good resistance to many dilute acids and alkalis.
Contact to sulfur containing compounds could lead to deactivation of the silver based additive.
The usage in industrial atmosphere should be therefore avoided.

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.