



Technical data sheet

IGP-HWFindustry 7909A-A0

Superdurable, low-temperature powder coatings, curable at 160 °C or above, for heavy steel parts and constructions.



Characteristics

- Gloss
- Smooth finish
- Uni colours
- High weather resistant industrial quality



Powder properties

Particle size:	< 100 µm
Solids:	> 99 %
Density:	1.3 kg/l-1.6 kg/l
Suitability for storage:	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:

Steel

- Blasting (at least SA 2 ½)
- Iron phosphating
- 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.

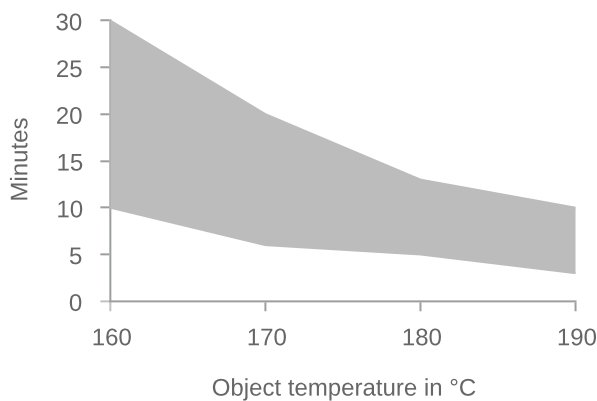
Recommended film thickness

80 µm - 100 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}
160 °C	10 minutes	30 minutes
170 °C	6 minutes	20 minutes
180 °C	5 minutes	13 minutes
190 °C	3 minutes	10 minutes

The oven temperature should be limited to 200°C

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
Film thickness: 80 µm - 100 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
Erichsen cupping / Tape test ≥ 2 mm DIN EN ISO 1520 2007-11

Weathering

QUV-SE-B-313, 600h > 50 % residual gloss DIN EN ISO 16474-3 2014-03
Xenon-arc lamps, 1500h > 70 % residual gloss DIN EN ISO 16474-2 2014-03

Corrosion tests

Condensation water test, 480h No delamination DIN EN ISO 6270-2 2018-04
No bubbles

Neutral salt spray test, 480h No edge corrosion
Iron phosphating (Gardobond 4976 /6800 OC): DIN EN ISO 9227 2017-07
< 5mm infiltration
Low edge corrosion
no blistering

Zinc phosphating (Gardobond 26S / 6800 OC):
< 1mm infiltration
very low edge corrosion
no blistering

Chemical tests

Operating materials Good resistance to chemicals,
especially cleaning agents,
operating fluids and fuels.
Acids and alkalis Good resistance to many dilute
acids and alkalis.



Further information

Packaging

20 kg cardboard box with inserted antistatic PE liner
500 kg cardboard container with 25 antistatic PE-liners each 20kg
500 kg Big Bag

Overcoating

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.

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**