



IGP-KORROPRIMER 18

Low-temperature priming powder for steel



IGP Korroprimer 18 is mainly composed of epoxy resins, the corresponding hardeners, and the appropriate light-, heat-, chemical-, and corrosion-resistant pigments.

This reactive epoxy system allows stoving temperatures from 130°C.

Technical Data Sheet

Characteristics

IGP Korroprimers are corrosion resistant, and have excellent chemical-resistance properties. All IGP powder varnishes, and water- and solvent-based top coats are suitable as finishing coats.

An adhesion test must be conducted for these liquid lacquer systems.

Application

Primer for blasted or zinc phosphated steel surfaces.

IGP Korroprimer 30 should be used for chromatised aluminium.

Product range

Surface aspects

- 1809A...A00, smooth finish, glossy light grey, approx. RAL 7035

Powder specification

- Particle size: < 100 µm
- Solids: approx. 99 %
- Density: approx. 1.6 – 1.7 kg/l
- Storage stability: mind 6 months
- Storage temperature: < 25°C

Packaging

- Carton with inserted antistatic PE sack, contents 20 kg.
Carton with 25 antistatic PE sacks of 20 kg each; contents 500 kg.

Processing instructions

Pre-treatment

The substrate to be covered must be free of oxidation products, scale, oil, fat or release agent residue. For zinc and its alloys, a multi-stage chromatising process has proven to be best DIN EN ISO 12487 (look the Processing Guidelines PG 206).

Material licence

Certification acc. to DIN EN ISO 55633 / EN ISO 12944 from Institut für Oberflächen-technik GmbH (IFO), Germany confirm:

- fulfill the requirements of corrosion class C5 for the IGP 2-layer powder coating systems
- the confirmed Tested-sign for building ("Ü-Zeichen") according to „Bauregelliste A, Teil 1, Ausgabe 2010/1



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Processing instructions

Outdoor use

A substrate made of steel must be blasted, preferably with electro corundum or conditioned cut wire shot. After blasting, the norm purity degree must be at least SA 2 ½ (white metallic polish) in accordance with EN ISO 12944-4. Further details can be found in this norm. Sharp edges, overlaps, etc., should be avoided (see EN ISO 12944-3).

Indoor use

For heavy usage, steel metal should preferably receive a zinc phosphate treatment. For light use, (on iron or Zinkor), a complete de-greasing is adequate.

Coating equipment

IGP Korroprimer 18 can be applied with all conventional application systems (corona- as well as tribo-charging). Regulations to be observed: VDE provisions and VDM information sheet 23471.

Information regarding application

The pre-defined baking conditions must be adhered to. If the baking temperature is too high, the circulation air temperature should be limited to a maximum of 200 ° C, in order to avoid problems with intercoat adhesion. This also pertains to limiting the time it is kept in the oven. The maximum residence time should be determined by your own practical experiments.

When curing thick steel components at increased temperatures, we recommend only allowing the primer to set, followed by a complete baking process together with the top coat.

When curing in directly heated gas stoves (NOx), a sample should be done in advance to ensure the intercoat adhesion with the following top coat. Please contact our technical customer support. In any event, practical experiments adapted to the particular object and baking oven are recommended, in order to determine the best possible baking conditions. Our technical customer support would be happy to advise you.

"Cup-shaped components" must be galvanized prior to coating if they are intended for outdoor use (see also DIN 55928, part 2).

Curing conditions

You will find temperature and time combinations that will produce adequate cross-linking of the coatings below.

Object temperature	retention time at object temperature
130°C	15 - 20 min.
140°C	10 - 15 min. *
150°C	6 - 10 min.

* Recommended curing conditions

Technological values

To determine the following data, IGP-Korroprimer 18 was applied as follows:

- Iron sheet metal, 0.8 mm, blasted
- coating thickness approx. 60 µm
- object temperature of 140°C, 10 min.

Erichsen cupping, ISO 1520 > 3.0 mm

Impact penetration, ASTM 2794 > 25 kg x cm

Cross-cut adhesion test, ISO 2409 GT 0

Note

All verbal and written application-related advice that we administer and have determined through experiments is based on the best of our knowledge, but is to be seen as non-binding information and does not release you from your responsibility to conduct your own experiments. Application, use and processing of the products occur beyond our control possibilities and therefore lie exclusively in your sphere of responsibility.

