IGP Powder Coatings
TDS IGP-DURA®cryl 4007E-A1|240424|v1.4

Technical data sheet

IGP-DURA®*cryl* 4007E-A1

Silk gloss powder coating with excellent anti-graffiti properties and very high weather resistance.

Characteristics

- Silk gloss
- Smooth finish
- Pearl mica
- Mica
- Super durable industrial quality
- Chemical resistant
- Antigraffiti

Powder properties

Particle size:
Solids:

Density:
Suitability for storage:
< 100 µm
> 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
For this product, a substrate-specific pretreatment and corresponding primer application is highly recommended. The single-layer application is carried out at the user's own responsibility.
Aluminium

- Chromating according to DIN EN 12487
- Chrome-free pretreatment according to GSB International and QUALICOAT specifications
- Pre-anodization

Steel

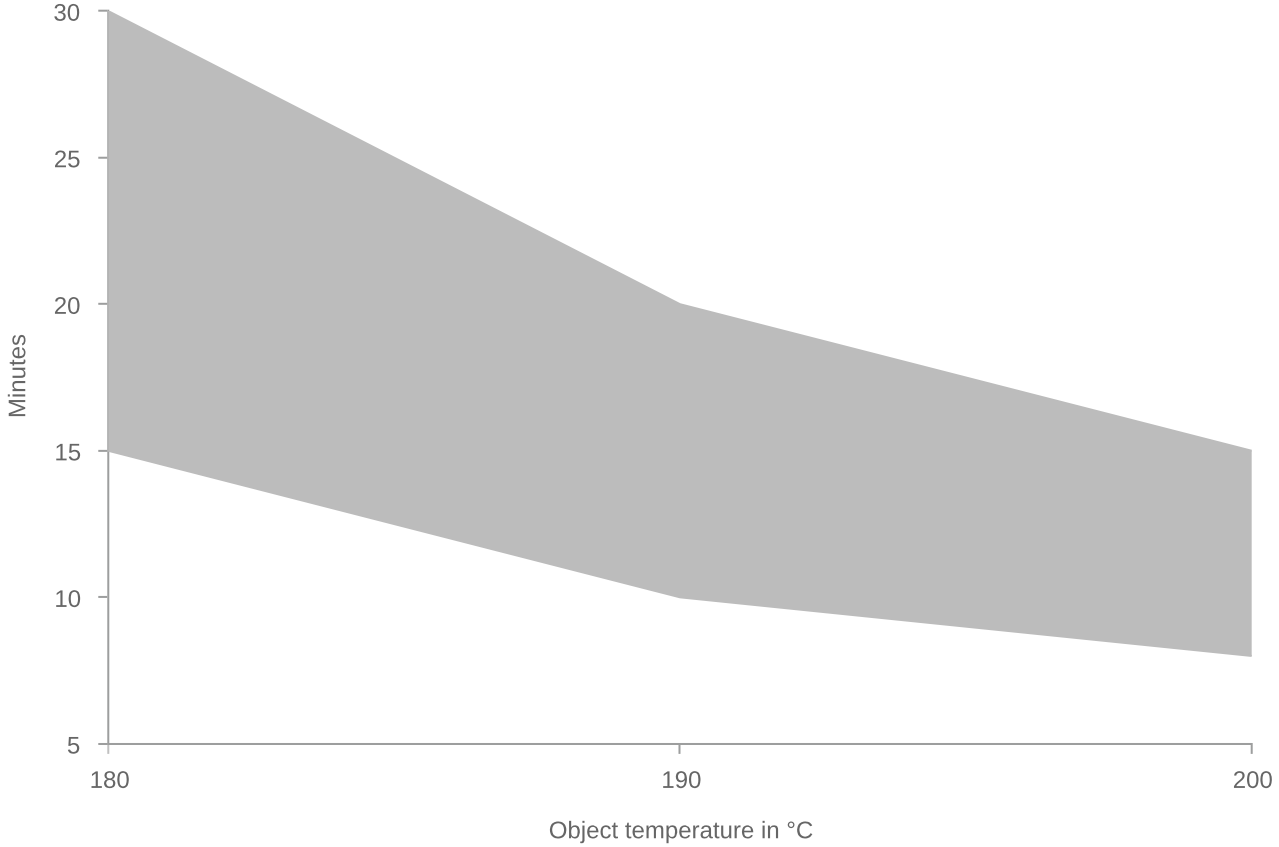
- Zinc phosphating

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	15 minutes	30 minutes
190 °C	10 minutes	20 minutes
200 °C	8 minutes	15 minutes

In order to determine ideal curing conditions, we recommend practical trials with the respective object and curing oven.
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.
Compatibility
Contamination with other powder coatings may result in a drop of the gloss level, cratering, loss of mechanical properties, etc. Devices and coating systems must be thoroughly cleaned before and after using the powder.

Film properties

Tested on
Substrate:

Steel, 0.5mm
Tested setting:
Tested on IGP-KORROPRIMER 10
Film thickness:
60 µm - 80 µm
Object temperature:
190 °C, 10 min.
Appearance
Gloss level
65-85 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 / Tapetest
≤ 8 mm
DIN EN ISO 1519 2011
Impact test / Tape test
≥ 10 inchp.
ASTM D 2794 1993
Erichsen cupping / Tape Test
≥ 2 mm
DIN EN ISO 1520 2007-11
Buchholz hardness
≥ 100
DIN EN ISO 2815 2003-10
Weathering
QUV-SE-B-313, 600h
> 50 % residual gloss
DIN EN ISO 16474-3 2014-03
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

Further information

Packaging
20 kg cardboard box with inserted antistatic PE liner

500 kg cardboard container with 25 antistatic PE-liners each 20kg

Overcoating

For overcoating anti-graffiti powder coatings, sanding and 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 grafitti:

- The contact time of the gaffiti 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 grafitti 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.