IGP Powder Coatings
TDS IGP-DURA®guard 321MA-A0|240424|v1.3

Technical data sheet

IGP-DURA®*guard* 321MA-A0

Matt, chemically highly resistant anti-graffiti powder coating with a fine texture for interior use.

Characteristics

- Matte
- Fine texture
- Uni colors
- Indoor quality
- Antigraffiti

Powder properties

Particle size:
Solids:
Density:
Suitability for storage:

< 3.94 mil
> 99 %
10.85 lb/gal-13.35 lb/gal
min. 18 months at ≤ 77 °F
in an unopened original container
Color tones:
RAL and NCS-S shades, individual 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:
Aluminum

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

Steel

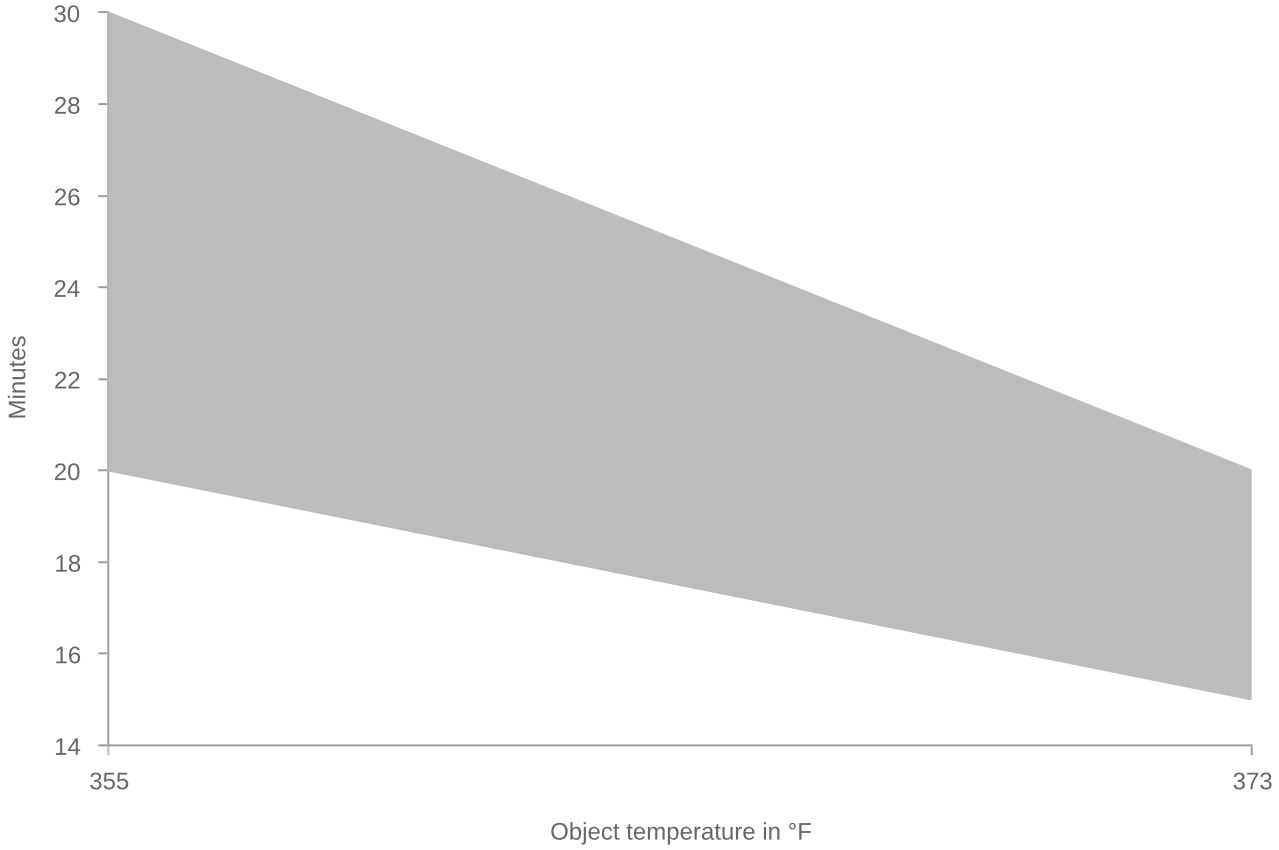
- Zinc phosphating
- Iron phospating

Galvanized 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 aluminum substrates / galvanized 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
2.36 mil - 3.15 mil
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}
356 °F	20 minutes	30 minutes
374 °F	15 minutes	20 minutes

In order to determine ideal curing conditions, we recommend practical trials with the object in question and curing oven. Due to a few 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 and concentrations.
Reclaimability
Small portions of recycled powder can be added, automatically if possible, to the fresh powder. Important: Keep overspray to an absolute minimum. Processing instruction VR 214 must be observed.

Film properties

Tested on
Substrate:
Aluminum, 0.8 mm, AQT 36
Film thickness:
2.36 mil - 3.15 mil
Object temperature:
374 °F, 15 min.

Mechanical tests
Cross-cut adhesion test
Gt 0
DIN EN ISO 2409 2020-12
Mandrel bending test / Tape test
≤ 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
Acids and alkalis
Very good resistance to many dilute acids and alkalis.
Organic solvents
Outstanding resistance to organic solvents
Cleaning
Easy2clean properties allow efficient removal of contamination by commercially available cleaning agents and/or disinfectants

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More information

Packaging
20 kg cardboard box with inserted antistatic PE liner
400 kg cardboard container with antistatic PE-liner
500 kg cardboard container with 25 antistatic PE-liners each 20kg
Overcoating suitability
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.
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 - Socostript 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.