



app.print.technical_data_sheet.title

IGP-DURA®one 5603E-A1

Matte, smooth flowing low-cure powder coating with good weather stability based on saturated polyester and declaration-free hardener.



app.print.technical_data_sheet.characteristics

- Matte
- Smooth finish
- Pearl mica
- Mica
- Standard facade quality,
1 year Florida > 50% residual gloss
- Lower cure



- GSB 173 d - Florida 1
- Part of QSC-System
- Qualicoat Nr. P-1983, class 1
- Qualicoat Nr. P-1955, class 1
- QSC ST2 PE-0015/IGP-KORROPRIMER 1001
- QSC ST2 PE-0016/IGP-KORROPRIMER 6007
- QSC ST2 PE-0206/IGP-KORROPRIMER 1808
- QSC HD2 PE-0017/IGP-KORROPRIMER 1001
- QSC HD2 PE-0018/IGP-KORROPRIMER 6007
- QSC MS2 PE-0074/IGP-KORROPRIMER 1001
- QSC HD1 PE-0160



app.print.technical_data_sheet.powder_properties.title

app.print.technical_data_sheet.powder_properties.particle_size: 100 per cent
 app.print.technical_data_sheet.powder_properties.solid: 99.8 per cent
 app.print.technical_data_sheet.powder_properties.density: 1.36 g/cm³
 app.print.technical_data_sheet.powder_properties.storage_suitability.prefix: 24 months
 app.print.technical_data_sheet.powder_properties.storage_suitability.at: 25 °C
 in an unopened original container
 app.print.technical_data_sheet.powder_properties.binding: RAL Metallics and binders metallic colors on request



app.print.technical_data_sheet.processing.title

app.print.technical_data_sheet.processing.substrates

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 10, IGP-Korroprimer 18 or IGP-KORROPRIMER 60 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).

app.print.technical_data_sheet.processing.coating_devices

All conventional electrostatic systems with corona charging.

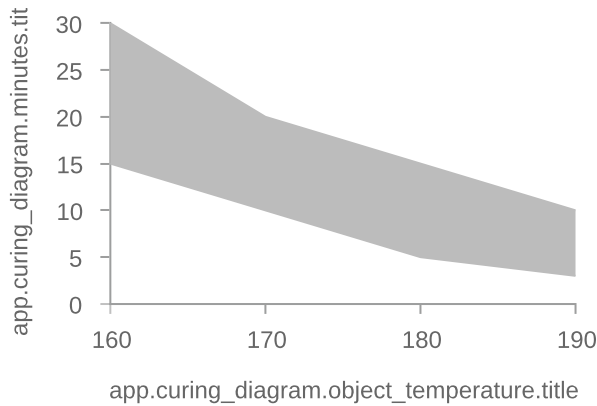
For the construction and operation of powder coating plants, the following regulations must be complied with: ATEX RL 2014/34/EU, EN 50177, DIN EN 16985.

app.print.technical_data_sheet.processing.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.

app.print.technical_data_sheet.processing.curing_condition_recommendation



app.print.technical_data_sheet.processing.curing_conditi

160 °C

170 °C

180 °C

190 °C

In order to determine ideal curing conditions, we recommend practical trials with the respective object and curing oven.

For further information on gloss & overbake stability, please refer to IFO report 42420. Please contact your IGP representative.

app.print.technical_data_sheet.processing.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.



app.print.technical_data_sheet.film_properties.title

app.print.technical_data_sheet.film_properties.tested_on.title

app.print.technical_data_sheet.film_properties.tested_on.title: Application (At 40 g/10.8 cm²)
 app.print.technical_data_sheet.film_properties.tested_on.title: 60 particles/80 µm thickness:
 app.print.technical_data_sheet.film_properties.tested_on.title: 170 °C/10 object temperature:

app.print.technical_data_sheet.film_properties.appearance

app.print.technical_data_sheet.film_properties.appearance: 25-35 Rz/60s gloss_level DIN EN ISO 2813 2015-02

app.print.technical_data_sheet.film_properties.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

app.print.technical_data_sheet.film_properties.weathering_tests

Xenon-arc lamps, 1000h	> 50 %	DIN EN ISO 16474-2 2014-03
QUV/SE-B-313, 300h	app.print.technical_data_sheet.film_properties.residual_gloss > 50 %	DIN EN ISO 16474-3 2014-03
1 year Florida, 5° south	app.print.technical_data_sheet.film_properties.residual_gloss > 50 %	DIN EN ISO 2810 2021-01
	app.print.technical_data_sheet.film_properties.residual_gloss	

app.print.technical_data_sheet.film_properties.corrosion_tests

Condensation water test, 1000h	No infiltration, no blisters	DIN EN ISO 6270-2 2018-04
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Acetic acid salt spray test, 1000h

No infiltration, no blisters

DIN EN ISO 9227 2017-07

app.print.technical_data_sheet.film_properties.chemical_tests

Mortar resistance

Easily removable after 24h with no residues.

ASTM D 3260 2001



app.print.technical_data_sheet.more_information.title

app.print.technical_data_sheet.packaging.title

20 kg cardboard box with inserted antistatic PE liner

app.print.technical_data_sheet.processing.overcoating

Preliminary tests are mandatory for overcoating painted surfaces.

app.print.technical_data_sheet.processing.printing_and_glueing

Preliminary tests are mandatory for printing and glueing of painted surfaces.

app.print.technical_data_sheet.more_information.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.

app.print.technical_data_sheet.more_information.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.

app.print.technical_data_sheet.more_information.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.

app.print.technical_data_sheet.infobox