

app.print.technical\_data\_sheet.title

## IGP-DURA®*pol* 681TD-H1

Matt, low-temperature powder coating with a fine texture, ideal for interior and exterior applications.



### app.print.technical\_data\_sheet.characteristics.title

- Deep matte
- Fine texture
- Metallic
- Industrial outdoor quality
- Cover with transparent



### app.print.technical\_data\_sheet.powder\_properties.title

app.print.technical\_data\_sheet.powder\_properties.particle\_size: 3-8 µm  
 app.print.technical\_data\_sheet.powder\_properties.solid: 99.8%  
 app.print.technical\_data\_sheet.powder\_properties.density: 10.85 lb/gal / 13.75 kg/gal  
 app.print.technical\_data\_sheet.powder\_properties.storage\_suitability.prefix: 24 months  
 app.print.technical\_data\_sheet.powder\_properties.storage\_suitability.at: 77 °F  
 app.print.technical\_data\_sheet.powder\_properties.storage\_suitability.in: in an unopened original container  
 app.print.technical\_data\_sheet.powder\_properties.special\_requirements: RAL Metallics and blends 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:

Aluminum

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

Steel

- Zinc phosphating

Galvanized steel

- Zinc phosphating
- Chrome (III) passivation
- Chromating according to DIN EN 12487

For improved corrosion protection for applications on steel / galvanized 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 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).

#### **app.print.technical\_data\_sheet.processing.coating\_devices**

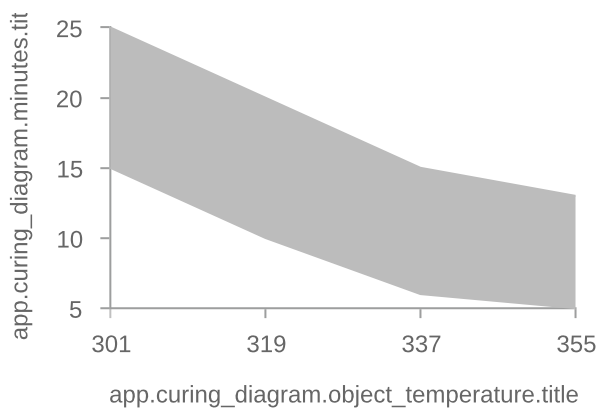
All conventional electrostatic systems with corona charging. For the construction and operation of powder coating plants, the following regulations must be complied with: ATEX RL 2014/34/EU, EN 50177, DIN EN 16985.

#### **app.print.technical\_data\_sheet.processing.recommended\_film\_thickness**

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.

#### **app.print.technical\_data\_sheet.processing.curing\_condition\_recommendation**



#### **app.print.technical\_data\_sheet.processing.curing\_conditi**

302 °F

**320 °F**

338 °F

356 °F

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

#### **app.print.technical\_data\_sheet.processing.application\_instruction**

IGP processing instruction for "IGP-DURA<sup>®</sup>xal": VR 207.2.

#### **app.print.technical\_data\_sheet.processing.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 & VR 201.1 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: Experiment (AtMg3) 03.08.2016, chromated

app.print.technical\_data\_sheet.film\_properties.tested\_on.title: Properties film thickness: 236 microns

app.print.technical\_data\_sheet.film\_properties.tested\_on.title: Properties object temperature: 220°F

### 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 / Tape test	≥ 10 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

QUV-SE-B-313, 200h	> 50 %	DIN EN ISO 16474-3 2014-03
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
Natural salt spray test, 1000h	No infiltration, no blisters	DIN EN ISO 9227 2017-07



## app.print.technical\_data\_sheet.more\_information.title

### app.print.technical\_data\_sheet.packaging.title

20 kg cardboard box with inserted antistatic PE liner

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

### 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.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