



IGP-DURA[®]xa/ 4601

4601, dull matt industrial design quality

IGP-DURA[®]xa/4601 is a new generation of dull matt industrial powders based on acrylic-copolymer resins with corresponding hardener combinations and heat, light and chalking-resistant pigments.

Technical Data Sheet

Product description

IGP-DURA[®]xa/4601 is the product of many years of IGP development for the optimised presentation of dull matt, distinguished surfaces for the industrial and high quality design area. At the same time, the innovative bonding agent combination permits outstanding gloss retention, excellent coating characteristics and good resistance to both chemicals.

Characteristics

- outstanding light and weather resistance
- dull matt surface
- excellent coating characteristics

Area of application

- bicycle frames
- agricultural machinery
- garden and camping furniture
- housings for automatic devices, switch cabinets
- lights
- boilers, radiators
- ceiling panels
- household appliances
- office furniture

Product range

Surface aspects

- **4601A**, smooth finish, dull matt
- **4601E**, pearl mica effect, dull matt gloss level, DIN EN ISO 2813: < 12 R'/60°

Shades

Due to the restricted selection of highly weather-resistant pigments, the exterior line (additional colours for the industrial design area possible on request) includes a limited number of different shades in accordance with the special IGP shade register.

Powder specification

- Particle size: < 100 µm
- Solids: about 99%
- Density according to shade: 1.2 – 1.6 kg/l
- Storage stability: at least 12 months
- Storage temperature: < 25° C

Packaging

- Carton with anti-static PE sack included, contents 20 kg, excluding transparent coating powder: 15 kg.
- Carton container with 25 anti-static PE sacks, contents 500 kg, or 400 kg.



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IGP-DURA®*xa*/ 4601

Processing instructions

Pre-treatment

The substrate to be covered must be free of oxidation products, scale, oil, fat or release agent residues.

For exterior application a pre-treatment adapted to the substrate is absolutely necessary:

- aluminium: chromating DIN EN ISO 12487
- Steel: zinc or Fe-phosphating, additionally coated with **IGP Korroprimer 10**.

For more information: see our special insert on pre-treatments (IGP-TI 100).

Coating equipment

All standard electrostatic systems with corona charging. Regulations to be observed: VDE regulations and VDM information sheet 24371. IGP processing guidelines for "pearl mica effects": VR 201.

Recyclability

Recycled powder should be apportioned as a low proportion, as far as possible automatically, with fresh powder.

Important: overspraying should be absolutely kept to a minimum.

Curing conditions

Temperature and time combinations which result in the ideal reticulation of the coating are shown.

<i>Object temperature</i>	<i>retention time at object temperature</i>	
	<i>minimum</i>	<i>maximum</i>
190°C	15 Min.	25 Min.
200°C	10 Min.	20 Min.

The rate at which a component heats up, will affect the gloss level. We would, therefore, definitely recommend practical trials on individual objects, to clarify the best possible stoving conditions. If you need any further advice, do not hesitate to contact our technical customer service department.

Technological values

To determine the following data IGP-DURA®*xa*/ 4601 was applied as follows:

- alu sheet (AlMg1 H14 or "Q-Panel AA 5005-H24") 0.8 mm, chromated
- coating thickness < 60-80 µm
- object temperature of 200°C, 10 min.

Gloss level, DIN EN ISO 2813	< 12 R´/60°
Cross-cut adhesion test, DIN EN ISO 2409	Gt 0
Mandrel bending test, DIN EN ISO 1519/ tape test	< 5 mm
Impact penetration, ASTM D2794/tape test	> 2.5 Nm
Erichsen cupping, DIN EN ISO 1520/ tape test	> 5mm
Buchholz hardness, DIN EN ISO 2815	> 80

Accelerated weathering test

300 hours DIN EN ISO 11341: > 50% residual gloss

1000h water condensate test, DIN EN ISO 6270-2:
no infiltration, no blisters.

1000h salt spray test, DIN EN ISO 9227:
no infiltration, no blisters.

Cleaning

The coated parts must be cleaned in accordance with the regulations RAL-GZ 632 or SZFF 61.01. For pearl mica effects the technical information IGP-TI 106 must also be taken into account.

Note

This technical application advice is provided in accordance with current findings, but must be regarded as a non-binding notice and does not release you from conducting your own tests. Application, use and processing of the products occur beyond our possibilities of control and therefore lie exclusively in your sphere of responsibility.

