IGP-DURA®*than* 8109B

Transparent coatings

Crack-free **Polyurethane**-coating system on a saturated polyester resin base and with declaration-free hardener.

Technical Data Sheet

Characteristics

- conditional light and weather resistance
- impact resistant surface with excellent flow
- very good mechanical properties
- excellent transparency and brilliance
- No yellowing with directly heated gas ovens.

Applications

Suitable principally for small parts or pipe constructions, not for large flat surfaces.

- as a "top coat" for the finishing of metallic coatings for:
- bicycle frames
- engine casings
- drain fittings
- decorative interior fittings of:
  Brass
  Chrome
  Nickel

Product range

Surface appearances:

- 8109B, smooth flowing, **glossy**

Gloss class, ISO 2813: > 85 R´/60°

Shades:

- according to the IGP colour shade register

Powder specification

- Particle size: < 100µm
- Solids: > 99%
- Density acc. to shade: 1.2 kg/l
- Storage stability: min. 12 months
- Storage temperature: < 25° Celsius

Packing

- Carton with antistatic PE liner, capacity 20 kg.
- Carton container with 20 antistatic PE liners for 20kg, capacity 400 kg

Product declarations:
Safety data sheet: SD 010

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Processing instructions

Pre-treatment

The substrate to be coated must be free of oxidants, cinder, oil, grease, stripping agents and other residues.
For exterior use, pre-treatment matching the substrate/surface is absolutely necessary:

- Aluminium: Chromatising DIN 50939
- Galvanised sheet metal: also DIN 50939,
- Steel: zinc or Fe phosphating.

For further information: see also our special leaflet on pre-treatment (IGP-TI 100).

Coating equipment

All commercially available electrostatic systems, both Corona and Tribo charge systems. Relevant regulations: VDE requirements and the VDM data sheet 24371.

Processing instructions

Coloured transparent powder coatings are suitable principally for small parts or pipe constructions, not for large flat surfaces.
In contrast to „covering" pigmented shades, with transparent powder coatings, the substrate shows through, and is therefore decisive for the overall shade: i.e. the brighter (e.g. aluminium), more uniform and cleaner the substrate, the purer and more brilliant the shade of the film coating; a dark grey steel or iron substrate can only produce dirty shades.
Furthermore, the visual impression is greatly influenced by the coating thickness and uniformity! Different coating thicknesses produce different shades! For this reason it inadvisable to apply further coats of transparent powder coatings by way of a touch-up procedure.
Naturally special attention must be paid to the cleanliness of equipment and the environment with transparent coatings.

Recycling capacity

Small proportions of recycled powder should be added to the fresh powder, where possibly automatically.
Important:
Overspray should in all cases be kept as low as possible

Stoving conditions

Given are the temperature and time combinations which result in optimal cross-linking of the coating.

Object	*Retention time at object temperature*	
temperature	*minimum*	*maximum*
180°C	15 min.	30 min.
190°C	**10min.**	20 min.
200°C	7 min.	15 min.

The specified stoving conditions must be observed in order to avoid cracking if the object temperature is too low or yellowing if it is too high (> 210°C).
You are recommended to carry out practical trials adapted to the object in question and the stoving oven, in order to achieve optimal stoving conditions. Our Technical Service department will be glad to advise you.

Technological values

To determine the following data, IGP-DURA®*than* 8109B was applied as follows:

- Aluminium sheet (AlMg1) 0.8mm, chromatised
- Coating thickness 60-80 µm
- Object temperature 190°C for 10 min.

Gloss class, ISO 2813	> 85 R´/60°
Cross-cut adhesion test, ISO 2409	Gt 0
Mandrel bending test, ISO 1519	< 5 mm
Impact penetr., ASTM D2794	> 20 inchp.
Erichsen cupping, ISO 1520	> 5 mm
Buchholz hardness, ISO 2815	> 80

Weathering:

Outstanding in an industrial environment.

Note

Our technical advice on application, given verbally, in writing and through trials is provided to the best of our knowledge but is to be regarded solely as non-binding information and does not release you from the need to carry out your own tests and trials.
Application, use and processing of the products take place outside our ability to supervise and are therefore exclusively your own responsibility.

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Powderful Solutions.

07.09 · TDS PUR 8109B / V1 · WM