



IGP-DURA®mix 331

Fine structure for indoor use

Decorative fine textured powder on saturated polyester and epoxy resin basis, plus the corresponding light and heat resistant pigments.

Technical Data Sheet

Characteristics

- good general resistance properties
- high yellowing resistance during stoving
- impact resistant, matt surface

Applications

- Automatic unit casings
- Office furniture
- Office chairs
- Domestic appliances
- Small parts with intricate geometries
- Machine panels
- Switchgear cabinets

Product range

Surface appearance:

- **331M**, fine structure, matt
- **331S**, fine structure, silk gloss

Shades:

Mainly RAL and NCS shades, special domestic shades on request.

Powder specifications

- Particle size: < 100 µm
- Solids: approx. 99%
- Density: approx. 1.3-1.6 kg/l
- Storage stability: at least 24 months
- Storage temp.: < 25° C

Packaging

- Carton with antistatic PE bag liner, capacity 20 kg, net.
- Carton container with 25 antistatic PE liner bags, capacity 500 kg, net.

Safety data sheet: SD 010



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IGP-DURA[®]mix 331

Processing instructions

Pre-treatment

The substrate to be coated must be free of oxidation products, scale, oil, grease or mould-release agents.

- Aluminium, depending on intended purpose, degreasing or chromatising according to DIN EN ISO 12487
- Steel or galvanised sheet metal, depending on intended purpose, degreasing 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 VDM data sheet 24371.

Technical notes on application

The formation of an even structure and texture depends to a large degree on the thickness of the coating applied. We recommend a coating thickness of 60-80 µm.

Recycling capacity

Recycled powder should be added in small proportions (automatically, if possible) to the fresh powder and then processed.

Compatibility

IGP-DURA[®]mix 331 contains texturing agents which are incompatible with all smooth flowing coating powders: even small traces can cause faults such as cratering.

When changing powders, extreme cleanliness must be observed.

Stoving conditions

Temperature and time combination resulting in optimum cross-linking of the coating.

Object- temperature	Retention time at object temperature	
	minimum	maximum
160°C	20 min.	40 min.
170°C	15 min.	30 min.
180°C	10 min.	20 min.

To obtain optimum stoving conditions, we recommend practical trials each time, adapted to the object in question and the stoving furnace. Our technical service department will be glad to advise you.

Technological values

To determine the following data, IGP-DURA[®]mix 331 was coated as follows:

- Galvanised sheet metal 0.8 mm
- Coating thickness 80 µm
- Object temperature 180°C, 10 min.

Cross-cut adhesion test, DIN EN ISO 2813	Gt 0
Mandrel bending test, DIN EN ISO 1519	< 5 mm
Impact penetration test, ASTM D2794	> 10 kg × cm
Erichsen cupping, DIN EN ISO 1520	> 3 mm
Buchholz hardness, DIN EN ISO 2815	> 80

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

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

Thermal resistance properties:

>100°C gradually yellowing.

Resistance to chemicals:

IGP-DURA[®]mix 331 displays good resistance values against many diluted acids and alkalines.

Loads from organic solvents are only possible conditionally and for the short term.

Resistance should be tested from case to case.

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 pro-cessing of the products take place outside our ability to supervise and are therefore exclusively your own responsibility.

