IGP-DURA®face 581M
Fine structure, matt
Facade quality
Matt, weather-resistant fine structure powder on saturated polyester resin base, incl. the appropriate hardener, and special heat, light and chalk resistant pigments.

Properties
• Excellent light and weather resistance
• Impact-proof surface with decorative fine structure effect
• Good elasticity
• Non-yellowing in direct-heat gas ovens

Application
• Facade elements, window profile sections
• Garden and camping furniture
• Machine casings, switchgear cabinets
• Lights
• Bicycle frames
• Agricultural machinery
• Railing sections

Product range
Surface appearance
• 581MA, fine structure, matt
• 581ME, fine structure, matt, with pearl-mica effect

Colour shades
Mainly RAL and NCS shades, colour shades as shown in the IGP colour chart "Eisenglimmer-Effekt", as well as special house shades.

Powder specifications
• Particle size: < 100 µm
• Solids: approx. 99%
• Density acc. to shade: 1.3 - 1.6 kg/l
• Storage stability: min. 24 months
• Storage temperature: < 25 °C

Packing
• Carton with antistatic PE bag liner, capacity 20 kg,
• Carton container with 25 antistatic PE bags, 20 kg each; capacity 500 kg

Material approvals:
GSB No. 109n, class «standard»
Qualicoat No. P-0561, class 1

Article-specific safety data sheet and further risk management measures at:
www.igp-powder.com
IGP-DURA®face 581M

Processing instructions

Pre-treatment
The substrate to be coated must be free of oxidation products, or residue from scale, oil, grease or release agents.

Aluminium substrate
Chromating: DIN EN 12487
Chrome-free pre-treatment: possible option
Pre-anodisation: possible option

Steel substrate
Zinc or iron (Fe) phosphating
Galvanised sheet metal:
Chromatising in accordance with DIN EN 12487

For improved corrosion protection for applications on steel / galvanised steel, the use of corrosion protection primer IGP-KORPROPRIMER 10 is recommended. The suitability of the pre-treatment 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 intended for architectural applications is performing a boil test / pressure cooker test with a subsequent cross-cut adhesion and pull-off test. We refer to the guidelines of the GSB certifications and Qualicoat.

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. Exceptions are Pearl Mica effects, IGP-DURA®face 581ME which must be processed only with corona charging.

Relevant regulations: VDE requirements and VDM data sheet 24371.

Recycling
Small portions of recycled powder should be added, automatically if possible, to the fresh powder.
Important:
Keep overspray to an absolute minimum.
Processing instruction VR 201 must be observed.

Stoving conditions
The temperature and time combinations resulting in optimum cross-linking of the coating are shown.

Object temperature Retention time at object
minimal maximum
170 °C  15 min  30 min
180 °C  10 min  20 min
190 °C  5 min  10 min

You are advised to carry out practical trials adapted to the object in question and the stoving oven in order to determine the optimum stoving conditions. Our Technical Department will be glad to help.

Technological values
To determine the following data, IGP-DURA®face 581MA/E was applied as follows:
• Aluminium sheet (AlMg1) 0.8 mm, chromatised
• Coating thickness 80 µm
• Object temperature 180 °C, 10 min

Gloss class, DIN EN ISO 2813
581MA  10-20 R'/60°
581ME  5-25 R'/60°

Cross-cut adhesion test, DIN EN ISO 2813
Gt 0

Mandrel bending test, DIN EN ISO 1519
< 5 mm

Impact penetr., ASTM D2794
20 inchp.

Erichsen cupping, DIN EN ISO 1520
> 5 mm

Buchholz hardness, DIN EN ISO 2815
> 80

Accelerated weathering-test
DIN EN ISO 16474-2: > 50% residual gloss after 1000h.
QUV/SE-B-313, DIN EN ISO 16474-3/ASTM G-53-88: after 300 h > 50% residual glosses

Weathering
1 year Florida, 5° south: > 50% residual gloss,
DIN EN ISO 2810.

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

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

Mortar resistance, ASTM D 3260:
Easily removable after 24h with no residues.

Cleaning
Coated parts to be cleaned in compliance with the regulations RAL-GZ 632 or SZFF 61.01.

For pearl-mica effect, the Technical Information IGP-TI 106 must also be observed.

Note
Our technical advice on application, given verbally, in writing or through trials is provided to the best of our knowledge but is too 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 control and are therefore exclusively within your own responsibility.