



IGP-HWF*classic*

5903, mat

Highly Weather-resistant Facade Quality

IGP-HWF*classic*, 5903 is a new generation of mat coating powders with substantially improved weathering performance with regard to gloss retention, chalking and colour stability than conventional polyester powders.

Technical Data Sheet

Product description

IGP-HWF*classic*, 5903 is the result of many years of development by IGP involving the production of **highly weather-resistant coatings for architectural applications** on saturated polyester resin base and with declarati-on-free hardeners.

Characteristics / application

- facade elements
- window profile sections

The coatings have good mechanical values and high resistance to chemicals. High UV resistance, slower film degradation and the dirt-repelling properties of the film surface allow much longer intervals between facade cleaning operations.

By the addition of the IGP-DURA[®]*clean*-effect the IGP-HWF products possess a surface which can be cleaned easily.

Product range

Surface appearance

- **5903A**, smooth flowing, mat with IGP-DURA[®]*clean*-effect
- **5903E**, pearl mica effects, mat with IGP-DURA[®]*clean*-effect
- **5903B**, transparent/colourless, mat
Gloss, DIN EN ISO 2813: 25-35 R'/60°

Colour shades

Due to the limited selection of highly weather-resistant pigments, the product range includes only a limited number of different colours according to the special IGP colour chart.

Powder specification

- Particle size: < 100 µm
- Solids: approx. 99%
- Density depending on colour: 1.2-1.6 kg/l
- Storage stability: min. 12 months
- Storage temperature: < 25° C

Packing

- Carton with antistatic PE liner, capacity 20 kg, excluding transparent shades: 15 kg.
- Carton container 25 antistatic PE liners, capacity 500 kg or 400 kg.

Material approvals:

GSB No. 173b, Master and / or
Qualicoat No. P-0903, Class 2

Product declarations:

Safety data sheet: SD 010



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IGP-HWF*classic*, 5903

Processing instructions

Pre-treatment

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

- Aluminium: Chromatising DIN EN ISO 12487
- Galvanised sheet metal: DIN EN ISO 12487,
- Steel, zinc or Fe-phosphating additionally coated with IGP Korroprimer 10.

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" type, with the exception of pearl mica effects which must be processed only with "corona" charging.

Relevant regulations: VDE requirements and VDM data sheet 24371.

IGP processing instructions for "Pearl Mica Effects": VR 201.

Coating / recycling

Recycled powder should be added to the fresh powder in small amounts, as far as possible automatically.

Important:

Overspray should always be kept to a minimum.

Stoving conditions

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

Object- temperature	Retention time at object- temperature	
	minimum	maximum
190°C	15 min.	25 min.
200°C	10 min.	20 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, 5903 was applied as follows:

- Aluminium sheet (AlMg1 H14 or „Q Panel AA 5005-H24“) 0.8 mm, chromatised
- Coating thickness 60-80 µm
- Object temperature 190°C, 15 min.

Gloss, DIN EN ISO 2813	25-35 R'60°
Cross-cut adhesion test, DIN EN ISO 2409	Gt 0
Mandrel bending test, DIN EN ISO 1519/tape test :	< 5 mm
Reverse Impact, ASTM D2794/tape test :	> 2.5 Nm
Erichsen cupping, DIN EN ISO 1520/tape test :	> 5mm
Buchholz hardness, DIN EN ISO 2815	> 80

Weathering

3 years Florida, 5° south: > 50% residual gloss

Accelerated weathering

1000 h EN ISO 11341: > 90% residual gloss

1000 h Condensation test, DIN EN ISO 6270:
no infiltration, no bubbles.

1000 h Salt spray test, DIN EN ISO 9227:
no infiltration, no bubbles.

Mortar resistance, ASTM C 207:
easily removable after 24h without residues.

See also "Qualicoat" testing standards (Issue 01.01.2000), Class 2 Powder.

Cleaning

The coated parts are to be cleaned according to the specifications RAL-GZ 632 or SZFF 61.01.

For Pearl Mica effects, the Technical Information IGP-TI 106 must be observed in addition.

Note

Our technical advice on application, given verbally, in writing or 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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