



IGP-PFC 91

IGP-Powder Fluor Color 91, Facade Quality

IGP-PFC 91 is a new generation of mat coating powders based on Fluorocarbon polymers with substantially improved weathering performance with regard to gloss retention, chalking and colour stability than highly weather resistant polyester powders.

Technical Data Sheet

Product description

IGP-PFC 91 is the result of many years of development by IGP involving the production of **highly weather-resistant coatings for architectural applications on Fluorocarbon polymer base.**

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.

Product description

Surface appearance:

- 9103A, mat
- 9103E, pearl mica effects, mat

Gloss, DIN EN ISO 2813: 35 R' +/- 7EH / 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.

Material approvals:

Qualicoat No. P-0922, class 3

Product declarations:

safety data sheet: SD 120

Powder specification

- Particle size: < 100 µm
- Solids: approx. 99%
- Density dep. 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.
- Carton container 25 antistatic PE liners, capacity 500 kg

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 12944
- Galvanised sheet metal: DIN EN ISO 12944
- 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).



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IGP-PFC 91

Processing instructions

Coating equipment

All commercially available electrostatic systems with „corona-charge“.

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.

Compatibility

IGP-PFC 91 is slightly incompatible with other powder coatings. It is therefore highly recommended to thoroughly clean the entire coating line prior to and after the powder application.

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	20 min	30 min
200°C	15 min.*	20 min.

*Recommended curing conditions

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.

The curing of IGP-PFC 91 will result in the emission of small doses of ϵ -caprolactam, which may cause minor smoke and odour. Provide sufficient ventilation and observe maximum allowable concentration guidelines.

Technological values

To determine the following data, IGP-PFC 91 was applied as follows:

- Aluminium sheet (AlMg1 H14 or „Q Panel AA 5005-H24“) 0.8 mm, chromatised
- Coating thickness 60-80 μ m
- Object temperature 200°C, 15 min.

Mechanical Properties:

Adhesion-Test, AAMA2605-02 7.4: no loss of adhesion

Reverse Impact, AAMA2605-02 7.5: no loss of adhesion
tape test

Abrasions test, AAMA2605-02 7.6:

Abrasion coefficient: > 40

Cross-cut adhesion test, DIN EN ISO 2409 Gt 0

Buchholz hardness, DIN EN ISO 2815 > 80

Mandrel bending test, DIN EN ISO 1519/Tapetest :< 5 mm

Erichsen cupping, DIN EN ISO 1520/ Tapetest : >5 mm

Technological values

Resistance to chemicals, AAMA2605-02 7.7:

IGP-PFC 91 displayed good resistance to many diluted acids, alkalis and oils.

Corrosion resistance

Condensation test, AAMA2605-02 7.8.1, ASTM D714 (4000h)

Salt spray test t, AAMA2605-02 7.8.2, ASTM B117 (4000h), infiltration < 2mm, Kesternichtest, ISO3231: no bubbles, no change in gloss or colour.

Weathering

10 years Florida, 5° south, DIN EN ISO 2810:

Results of accelerated weathering tests and comparative tests to PVDF, in reference to the guidelines of AAMA2605-98 point at equivalent durability.

Accelerated weathering

5000 h Weatherometer, DIN EN ISO 11341: > 50% residual gloss

5000 Std. UV-B 313 nm, DIN EN ISO 53384 / ASTM G53-88: > 50% residual gloss

Mortar resistance, AAMA2605-02 7.7.2, ASTM C207

Easily removable after 24h without residues. No visible changes in gloss or colour.

Cleaning

The coated parts are to be cleaned according to the specifications RAL-GZ 632 or SZFF 61.01 and the Technical Information IGP-TI 106.

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 ability to supervise and are therefore exclusively your own responsibility.



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