

PROV. TECHNICAL DATA SHEET

IGP-DURA[®]sky 95

Highly weather-resistant façade quality



POWDER
COATINGS

IGP Pulvertechnik AG
Ringstrasse 30
9500 Wil, Switzerland
Phone +41 71 9298111
Fax +41 71 9298181
igp-powder.com
info@igp-powder.com

A Member of the DOLD GROUP

IGP-DURA[®]sky 95 is a new generation of coating powders based on fluorocarbons with unsurpassed weathering behavior in terms of gloss retention, weathering, chalking, and color stability compared to conventional highly weather-resistant polyester powders.

Properties / Application

- Façade elements
- Window profiles

The coatings are characterized by good mechanical values and resistance to chemicals.

Thanks to the high UV resistance, significantly improved gloss retention, and dirt-repelling properties the façades require less frequent cleaning.

Product range

Surface aspects:

9503A	smooth finish, matt Gloss level ISO 2813 : 30 ± 5 R' / 60°
9503E	smooth finish, matt, pearl mica effect Gloss level ISO 2813 : 30 ± 5 R' / 60°

Shades:

Due to the limited range of highly weather-resistant pigments, the product portfolio only includes a limited selection of different shades in accordance with the special IGP color range.

Powder specifications

Grain size	< 100 µm
Solids	approx. 99%
Density according to shade	1.2–1.6 kg/l
Suitability for storage	at least 12 months*
Storage temperature	< 25 °C

*in an unopened original container

Curing conditions

Time and temperature combinations that result in an optimal cross-linking of the coat are displayed.

Object temperature	Retention time at object temperature	
	Minimum	Maximum
200°C	15 min.	20 min.
210°C	12 min.	17 min.

In order to determine ideal curing conditions, we recommend always performing practical trials that are adapted to the respective object and the stoving oven. Our Technical Customer Service Department will be happy to help you in this regard.

During the curing process with **IGP-DURA[®]sky 95**, small amounts of e-caprolactam emissions are produced, which may result in unwanted smoke and odors depending on the oven's exhaust air settings. It is therefore necessary to ensure good ventilation to comply with the max. permissible workplace concentration (MAK).

Film properties

IGP-DURA[®]sky 95 was applied as follows to obtain the following data:

- Alu sheet (AlMg1 H14 or Q-panel AA 5005-H24)
0.8 mm, chrome-plated
- Coating thickness 50–80 µm
- Object temperature 200°C, 15 min

Mechanical tests

Adhesion, AAMA 2605-20 8.4	no detachment of the paint film
Impact penetration, AAMA 2605-20 8.5	no detachment of the paint film / tape test
Abrasion resistance, AAMA 2605-20 8.6	
Abrasion coefficient	> 40 liters per mil
Cross-cut adhesion test, ISO 2409	Gt0
Buchholz hardness, DIN EN ISO 2815	> 80
Mandrel bending test, ISO 1519 / tape test	< 5 mm
Erichsen cupping, ISO 1520 / tape test	> 5 mm

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Chemical resistance, AAMA 2605-20 8.7.1-8.7.5

Generally good resistance to acids, alkalis, and oil

Mortar resistance AAMA 2605-20 8.7.2, ASTM C207

After 24 h, easy to remove and free from residue.

No visible gloss or color changes.

Corrosion tests

Constant climate test, AAMA 2605-20 8.8.1, ASTM D2247, (4000 h),	virtually no blisters as per Figure 4 ASTM D714
Cyclical salt spray test, AAMA 2605-20 8.8.2, ASTM G85 (2000 h), infiltration	< 2 mm,

Weathering

10 years Florida, 45° south, ISO 2810
according to equivalent results by UA-EMMAQUA method and confirmation by third party

Accelerated weathering test, 5000 h weatherometer
EN ISO 11341 > 50% residual gloss

5000 h UV-B 313 nm,
DIN 53384 / ASTM G53-88 > 50% residual gloss

Processing Information

Pre-treatment:

The substrate to be coated must be free from oxidation products as well as scale, oil or releasing agent residues.

Aluminum substrate:

Chrome-free pre-treatment: preferably GSB and Qualicoat
tested systems

Chromatizing: DIN EN 12487

Pre-anodization: Also possible

Steel substrate:

Zinc or iron phosphating

Galvanized sheet metal: chromatizing in accordance with DIN EN 12487

IGP-KORROPRIMER 10 corrosion protection primer is recommended for use on steel / galvanized steel in order to achieve improved corrosion protection. For bright color shades we recommend IGP-KORROPRIMER 6007A90104A00.

The coater must always test the suitability of the pre-treatment method in advance using appropriate test methods. The minimum requirement for aluminum substrates / galvanized steel components for architectural applications is the implementation of a boiling test / pressure cooker test with subsequent cross-cut adhesion test and adhesive tape removal. We refer to the guidelines of the GSB certifications and Qualicoat. Please also refer to our special pre-treatment supplementary sheet (IGP-TI 100) for further information.

Coating equipment

All commercially available corona electrostatic systems. Coating via triboelectric charging is not possible.

The following regulations must be observed for the construction and operation of powder coating plants: ATEX Directive 2014/34/EU, EN 50177, EN 12981.

Processing Instruction VR201.1 must also be taken into consideration for pearl mica effects.

Recyclability

Small amounts of recycled powder should be added to the fresh powder (automatically where possible) and processed.

Compatibility

IGP-DURA[®]sky 95 displays only minimal incompatibility with other powder coatings; there may be some impairments such as a loss of gloss, craters, a loss of mechanical values, etc. Equipment and coating plants must be cleaned thoroughly before and after powder application.

Cleaning

The coated parts must be cleaned in accordance with the directives RAL-GZ 632 or SZFF 61.01. The technical Information IGP-TI 106 must also be observed when dealing with pearl mica effects.

Packaging

- Carton with inserted antistatic PE liner, content 20 kg
- Carton container with 25 antistatic PE liners, each weighing 20 kg, total contents 500 kg

Material approval

AAMA 2605-20

Safety information:

Article-specific safety data sheet and comprehensive risk management measures available at: www.igp-powder.com

Note:

This application-related advice is provided to the best of our current knowledge. However, it only represents non-binding information and does not release you from the need to perform your own tests. We have no control over the application, use and processing of the products. Therefore, this is solely your responsibility.