

# TECHNICAL DATA SHEET

## IGP-DURA<sup>®</sup>face 5803U

Facade quality



IGP Pulvertechnik AG  
Ringstrasse 30  
9500 Wil, Switzerland  
Phone +41 (0)71 929 81 11  
Fax +41 (0)71 929 81 81  
igp-powder.com  
info@igp-powder.com

A DOLD GROUP company

IGP-DURA<sup>®</sup>face 5803U is a weather-resistant, matte effect powder coating manufactured using the IGP-Effectives<sup>®</sup> process for reliable coating.

### Product Description

- Excellent weather and light resistance
- Impact-resistant surface with excellent flow
- Good elasticity
- No yellowing in direct-heat gas furnaces

### Application

- Metal facades
- Window and door frames
- Protection elements against sun and weather
- Urban furnishings
- Infrastructural furnishings

### Product Range

#### Surface aspects:

**5803U** Smooth finish, matt with pearl mica effect  
IGP-Effectives<sup>®</sup> technology

#### Shades:

The shades available from the IGP-Effectives<sup>®</sup> technology line are based on the IGP-HWF colour range register. If you would like to have a special shade of highly weather-resistant powder varnish manufactured with the IGP-Effectives<sup>®</sup> process, please contact your nearest distributing organization. Minimum annual purchase quantity for customized shades starting at 1 ton. The effect shades produced with IGP-Effectives<sup>®</sup> technology may deviate from the effect shade standards produced with the IGP-Mica Bond or IGP-Premium Bond process.

### Powder Specification

|                            |              |
|----------------------------|--------------|
| Particle size              | < 100 µm     |
| Solids                     | approx. 99%  |
| Density according to shade | 1.3–1.6 kg/l |
| Suitability for storage    | 24 months*   |
| Storage temperature        | < 25°C       |

\*in an unopened original container

### Curing Conditions

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

| Object temperature | Retention time at object temperature |         |
|--------------------|--------------------------------------|---------|
|                    | Minimum                              | Maximum |
| 170°C              | 15 min.                              | 30 min. |
| <b>180°C</b>       | <b>10 min.</b>                       | 20 min. |
| 190°C              | 5 min.                               | 10 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 is happy to help you.

### Film Properties

To determine the following data, 5803U was applied as follows:

- Aluminium sheet (AlMg1) 0.8 mm, chromatised
- Shades RAL 9010, 5010, 3005
- Coating thickness 60–80 µm
- Object temperature 180°C, 10 min.

#### Gloss level, DIN EN ISO 2813

5803U 25-35 R/60°

#### Mechanical tests

|  |             |
|--|-------------|
| Cross-cut adhesion test, DIN EN ISO 2409 | Gt 0        |
| Mandrel bending test, DIN EN ISO 1519    | < 5 mm      |
| Impact penetration, ASTM D2794           | > 20 inchp. |
| Erichsen cupping, DIN EN ISO 1520        | > 5 mm      |
| Buchholz hardness, DIN EN ISO 2815       | > 80        |

#### Weathering

|  |                      |
|--|----------------------|
| Long-term exposure, 1 year Florida, 5° south, DIN EN ISO 2810                      | > 50% residual gloss |
| Accelerated weathering test, QUV/SE-B-313, 300h, DIN EN ISO 16474-3 /ASTM G-53-88: | > 50% residual gloss |
| Accelerated weathering test, 1000h DIN EN ISO 16474-2                              | > 50% residual gloss |

# TECHNICAL DATA SHEET

## IGP-DURA<sup>®</sup>face 5803U

Facade quality



IGP Pulvertechnik AG  
Ringstrasse 30  
9500 Wil, Switzerland  
Phone +41 (0)71 929 81 11  
Fax +41 (0)71 929 81 81  
igp-powder.com  
info@igp-powder.com

A DOLD GROUP company

IGP-DURA<sup>®</sup>face 5803U is a weather-resistant, matte effect powder coating manufactured using the IGP-Effectives<sup>®</sup> process for reliable coating.

### Chemical tests

|   |   |
|---|---|
| 1000h condensate water test*,<br>DIN EN ISO 6270-2: | No infiltration,<br>No blisters                 |
| 1000h salt spray test*,<br>DIN EN ISO 9227:         | No infiltration,<br>No blisters                 |
| Mortar resistance,<br>ASTM D 3260:                  | Easily removable after 24h<br>with no residues. |

\* depending on pre-treatment

### Processing Information

#### Pre-treatment:

The substrate to be coated must be free of oxidation products, or residue from scale, oil, grease or release agents. Depending on application range and the planned usage duration, a pre-treatment suitable for the substrate is used:

#### Aluminium substrate:

|                            |  |
|----------------------------|--|
| Chrome-free pre-treatment: | Preferred approved systems<br>from GSB and Qualicoat |
| Chromatising:              | DIN EN 12487   |
| Pre-anodisation:           | Also available                                       |

#### 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-KORROPRIMER 60 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 crosscut 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. For the construction and operation of powder coating plants, the following regulations must be complied with: ATEX RL 2014/34/EU, EN 50177, EN 12981.

#### Recyclability

Due to the high bonding rate of powder granule and effect agent, the powder can be charged and deposited much more evenly compared to other effect and refining processes. This enables the powder to be applied with significantly higher recycling rates.

### 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.

### Stripping and Subsequent Use Phase

After use, coated goods should be supplied to the normal recycling process. The disposal methods for sludges or residual powders must be observed in accordance with the local official provisions whilst taking Waste Code "080201 Coating Powder Wastes" in accordance with the European Waste Catalogue into consideration.

### Packing

- Carton with inserted antistatic PE liner, content 20 kg
- Carton container with 25 antistatic PE liners, content 500 kg

### Material Approval

Qualicoat no. P-0540, class 1  
GSB no. 109r, class "standard"

#### Safety information:

Article-specific safety data sheet and comprehensive risk management measures available at: [www.igp-powder.com](http://www.igp-powder.com)

#### Note:

This application-related consulting is provided to the best of knowledge. However, it only represents non-binding information and does not release you from the need to perform your own tests. Application, use and processing of the products take place outside our ability to supervise and are therefore exclusively your own responsibility.