

TECHNICAL DATA SHEET

IGP-DURA[®]face 5807

Facade quality



IGP

**POWDER
COATINGS**

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A DOLD GROUP company

IGP-DURA[®]face 5807 is a weather-proof, silk gloss coating system with increased scratch resistance (Typ S) and easy-to-clean surface based on saturated polyester resins.

Product Description

IGP-DURA[®]face 5807 is a technological further development of the proven silk gloss surface version of the IGP-DURA[®]face 58 product range. The innovative reformulation is characterised by a significantly improved scratch resistance and improved abrasion resistance of the powder coating film against conventional polyester and epoxy polyester powder coating surfaces. The additional IGP-DURAclean[®] effect located close to the surface also ensures low dirt adhesion and good cleanability. An excellent initial application efficiency as well as good penetration and opacity give the product a high level of material efficiency and also gives the coater increased reliability during application

Application

Preferred for architectural and industrial components manufactured from steel and aluminium subjected to increased challenges in terms of retention of value and permanent aesthetics such as:

- Façade elements
- Window profiles and door panels
- City and outdoor furniture
- Industrial design

Product Range

Surface aspects:

| | |
|--------------|--|
| 5807A | Smooth finish, silk gloss, uni-colour |
| 5807E | Smooth finish, silk gloss with pearl mica effect |

Note: The new product variant differs from the previous product standard as it has the letter "S" in the 11th position of the article number. (for example: 5807A90160S70)

Shades:

Primarily RAL and NCS shades; individual or customer shades also possible by arrangement.

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. |
| 180°C | 10 min. | 20 min. |
| 190°C | 8 min. | 15 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, 5807A was applied as follows:

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

Gloss level, DIN EN ISO 2813

| | |
|----------|-------------|
| 5807A, E | 65–85 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 | > 85 |
| Robustness according to Martindale: residual gloss according to AA341.62 | > 60% |

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, WOM 1000h, DIN EN ISO 16474-2 | > 50% residual gloss |

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Chemical tests

| | |
|---|---|
| 1000h condensate 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. |

* depending on pre-treatment

Processing Information

Pre-treatment:

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

Aluminium substrate:

| | |
|----------------------------|--|
| Chrome-free pre-treatment: | Preferred approved systems 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

The IGP-KORROPRIMER 10 corrosion protection primer is recommended for use on steel / galvanised steel in order to achieve improved corrosion protection. The coater must test the suitability of the utilised pretreatment procedure in advance by means of appropriate test methods. The minimum requirement for aluminium substrates / galvanised 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 would like to refer to the directive of the GSB and Qualicoat certifications. Please also refer to our special pre-treatment supplementary sheet (IGP-TI 100) for further information.

Coating equipment

All conventional electrostatic systems such as "corona charging", "tribo charging" and "pearl mica" are excluded as they can only be processed with "corona charging". For the construction and operation of powder coating plants, the following regulations must be complied with: ATEX RL 2014/34/EU, EN 50177, DIN EN 16985.

Recyclability

Small amounts of recycled powder should be added to the fresh powder (automatically where possible) and processed. Processing Instruction VR201 must also be taken into consideration for pearl mica effects.

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 Nr. P-0230, class 1
Qualicoat Nr. P-1629, class 1
GSB Nr. 173u, class «Standard»
AAMA 2603-15, independent inspection documentation

Blasted bare steel - Qualisteelcoat:
PE-0015 with Korroprimer 1001
PE-0016 with Korroprimer 6007
Galvanized/swept steel- Qualisteelcoat:
PE-0017 with Korroprimer 1001
PE-0018 with Korroprimer 6007

Safety information:

Article-specific safety data sheet and comprehensive risk management measures available at: 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.