



Technical data sheet

IGP-HWFthermofer 531MB-A2

Matte, fine textured, highly weather-resistant powder coating that is suitable for creating stunning decorative effects using a thermal transfer printing process, certified by Qualideco.



Characteristics

- Matte
- Fine texture
- Transparent
- Standard facade quality,
1 year Florida > 50% residual gloss



Material approvals

- Qualicoat Nr. DP-0959, class 2
- Qualideco PS-008



Powder properties

Particle size:	< 100 µm
Solids:	> 99 %
Density:	1.2 kg/l-1.6 kg/l
Suitability for storage:	min. 12 months at ≤ 25 °C in an unopened original container



Processing

Pre-treatment

The substrate must be free from oil, grease and oxidation products. The pretreatment depends on the type of substrate and the corrosion protection to be achieved. We recommend the following pretreatments:

Aluminium

- Chromating according to DIN EN 12487
- Pre-anodization
- Chrome-free pretreatment according to GSB International and QUALICOAT specifications

Steel

- Zinc phosphating

Galvanised steel

- Zinc phosphating
- Chrome (III) passivation
- Chromating according to DIN EN 12487

For improved corrosion protection for applications on steel / galvanised steel, the use of corrosion protection primer IGP-KORROPRIMER 10 or IGP-KORROPRIMER 60 is recommended.

The suitability of the pretreatment 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 is to carry out a boiling water test with a subsequent cross-cut adhesion and tape test. We refer to the guidelines of the GSB International, Qualicoat and Qualisteelcoat certifications. For further information: see also our special leaflet on pre-treatment (IGP-TI 100).

Coating devices

All conventional electrostatic systems with corona charging.

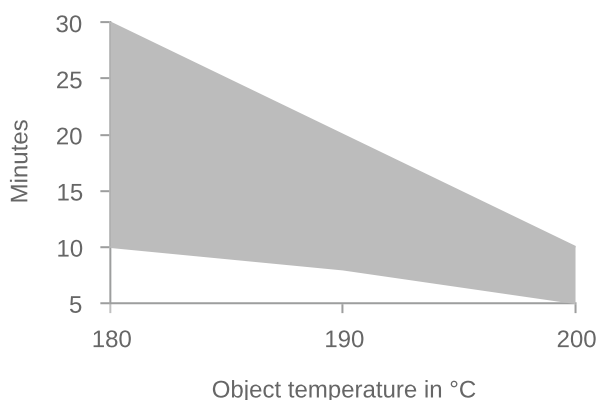
For the construction and operation of powder coating plants, the following regulations must be complied with: ATEX RL 2014/34/EU, EN 50177, DIN EN 16985.

Recommended film thickness

60 µm - 80 µm

During the coating process, care must be taken to ensure that the coating thickness is as uniform as possible on and between the individual workpieces. Even slight variations of around ± 5 µm can result in noticeably lighter or darker shades in the case of darker, glaze-like shades.

Curing conditions



T _{Object}	t _{min}	t _{max}
180 °C	10 minutes	30 minutes
190 °C	8 minutes	20 minutes
200 °C	5 minutes	10 minutes

In order to determine ideal curing conditions, we recommend practical trials with the respective object and curing oven.

Application

For the primer coat using IGP-HWFthermofer 531M, please follow the recommendations in the processing guideline VR219.

Once the coated substrate has been cured and cooled, 'transfer printing' takes place, - that is, the transfer of a design pre-printed on paper or film, such as wood grain patterns, onto or into the substrate using heat. The appropriate transfer papers are included in the scope of supply from the machine supplier.

Decorative variants:

1. MIROGLIO - DECOTRANS®ALU
2. SUBLIK - HEAT TRANSFER FILM SUBLIK
3. DEOCRAL SYSTEM - HEAT TRANSFER FILM DECORAL SYSTEM

in accordance with Qualideco licence PS-008

Reclaimability

To prevent contamination, particular care must be taken to ensure that the entire coating plant is thoroughly cleaned. As a general rule, clear powder coatings are suitable for reclaiming.



Film properties

Tested on

Substrate:	Aluminum (AlMg1), 0.8 mm chrom-free
Tested colours:	Yellow - according to sample
Film thickness:	60 µm - 80 µm
Object temperature:	180 °C, 10 min.

Appearance

Gloss level	4-18 R°/60°	DIN EN ISO 2813 2015-02
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Mechanical tests

Cross-cut adhesion test	Gt 0	DIN EN ISO 2409 2020-12
Mandrel bending test / Tape test	≤ 5 mm	DIN EN ISO 1519 2011
Impact test / Tape test	≥ 20 inchp.	ASTM D 2794 1993
Erichsen cupping / Tape test	≥ 5 mm	DIN EN ISO 1520 2007-11
Buchholz hardness	≥ 80	DIN EN ISO 2815 2003-10 (Anhang A)

Weathering tests

3 years Florida, 5° south	> 50 % residual gloss	DIN EN ISO 2810 2021-01
Xenon-arc lamps, 1000h, 90%	> 90 % residual gloss	DIN EN ISO 16474-2 2014-03

Corrosion tests

Acetic acid salt spray test, 1000h	No infiltration, no blisters	DIN EN ISO 9227 2017-07
Condensation water test, 1000h	No infiltration, no blisters	DIN EN ISO 6270-2 2018-04

Chemical tests

Mortar resistance	Easily removable after 24h with no residues.	ASTM D 3260 2001
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Further information

Overcoating suitability

Preliminary tests are mandatory for overcoating painted surfaces.

Printing and glueing

Preliminary tests are mandatory for printing and glueing of painted surfaces.

Protection of coated parts

Coated parts should be packed after cooling with suitable materials without plasticizers. They should be stored protected from the weather to avoid the formation of condensation and thus water spots on the coating.

Cleaning

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

Paint removal and disposal

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.

This application-related advice is given to the best of our knowledge. However, this information is non-obligatory and does not exempt you from carrying out your own tests. Application, use and processing of these products are beyond our control and are therefore on your responsibility.

Consult the Safety Data Sheet prior to use. Article-specific safety data sheet and comprehensive risk management measures available at: [igp-powder.com](https://www.igp-powder.com)