



Technical data sheet

IGP-HWFthermofer 531MB-A0

Matt, finely structured, 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
- Super durable façade quality, 3 years Florida > 50% residual gloss



Material approvals

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



Powder properties

Particle size:	< 3.94 mil
Solids:	> 99 %
Density:	10.01 lb/gal-13.35 lb/gal
Suitability for storage:	min. 12 months at ≤ 77 °F in an unopened original container
Color tones:	On request



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:

Aluminum

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

Steel

- Zinc phosphating

Galvanized steel

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

For improved corrosion protection for applications on steel / galvanized 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 aluminum substrates / galvanized 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

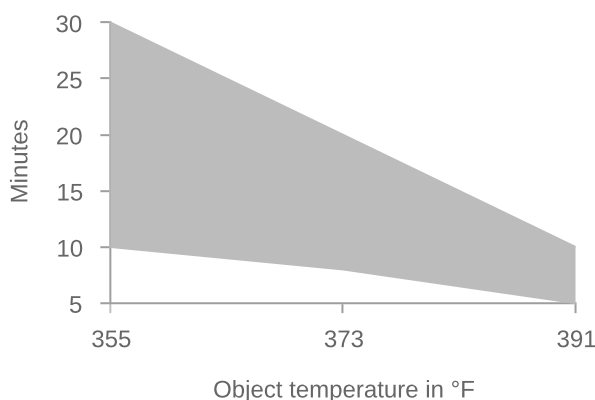
All commercially available electrostatic systems, both corona and tribo charge systems. For the construction and operation of powder coating plants, the following regulations must be complied with: ATEX RL 2014/34/ EU, EN 50177, DIN EN 16985.

Recommended film thickness

2.36 mil - 3.15 mil

A homogeneous coating result with textured coatings or article- and color-specific differences in hiding power may require higher coating thicknesses. The corresponding processing guidelines must be observed. For a pre-calculation of the required powder coating quantity, the necessary coating thickness must be determined for each article.

Curing conditions



T _{Object}	t _{min}	t _{max}
356 °F	10 minutes	30 minutes
374 °F	8 minutes	20 minutes
392 °F	5 minutes	10 minutes

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

Application

Primer coating with IGP-HWFthermofer 531M, layer thickness approx. 60–80µm. After the coated substrate has been cured and cooled, “transfer printing” takes place, i.e., the transfer of a motif specified on paper or film, such as wood grains, under the application of heat, on or in the substrate. The corresponding printing papers are included in the scope of delivery by the machine supplier. Decoration types: 1. MIROGLIO - DECOTRANS®ALU 2. SUBLIK - HEAT TRANSFER FILM SUBLIK 3. DEOCRAL SYSTEM - HEAT TRANSFER FILM DECORAL SYSTEM in accordance with Qualideco license PS-008

Reclaimability

Small portions of recycled powder can be added, automatically if possible, to the fresh powder. Important: Keep overspray to an absolute minimum. Processing instruction VR 214 must be observed.



Film properties

Tested on

Substrate:	Aluminum (AlMg1), 0.8 mm chromium-free
Tested shades:	Yellow - according to sample
Film thickness:	2.36 mil - 3.15 mil
Object temperature:	356 °F, 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 inhp.	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

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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More information

Packaging

15 kg cardboard box with inserted antistatic PE liner

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**