



Technical data sheet

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POLYFLEX® PES-125-GU smooth, outgasing Corona silk matt 35

Silk matt powder coating for outdoor application, based on polyester, with good light- and weather-fastness, very good covering qualities and very good outgasing properties. Resistant to over baking and discoloration in direct gas fired ovens.

Applications

For all types of galvanized steel used in, for example, railings, grids, solar protection systems, doors, gates, frames, auto mobile parts, machines and appliances.

Color tones

Practically all color tones, with few restrictions.

Surface

Smooth

Gloss

Silk matt, 35-45 gloss units (60°)

Powder properties

Particle size distribution

(HELOS H1708)

smaller than 29 µm: 40 – 47 %
 smaller than 122 µm: 99 – 100%

Density

1.4 – 1.7 g/cm³; differs according to color tone; can be specified for each tone on request.

Material consumption

$g/m^2 = \text{density (g/cm}^3) \times \text{coating thickness (}\mu\text{m)}$

Coating thickness

Recommendation: 70 – 90 µm according to color tone
 Maximum: 120 µm

Application

The coating can be applied with all typical electrostatic systems.

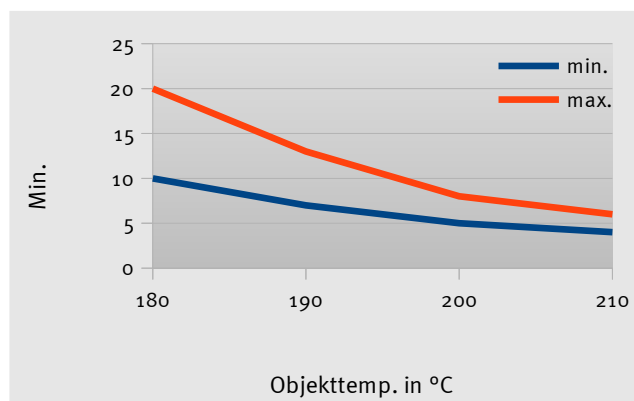
In order to prevent surface blemishes and deterioration of the powder's properties, we recommend that you do not mix this powder coating type with other powder coatings.

Packaging

- 20/25 kg cardboard
 - 500 kg Octobox
 - 450/500 kg Big Bag
- Other packaging types are available on request.

Baking diagram

Baking recommendation: 10 minutes at 180 °C object temperature



Baking conditions:

- 210°C 4 min. hold time
- 200°C 5 min. hold time
- 190°C 7 min. hold time
- 180°C 10 min. hold time

Substrates

Primarily hot-dip galvanized steel and aluminium with appropriate pretreatment. Coating is also possible in many cases on KTL or powder primers. The substrate to be coated must be free of oil, grease and oxidation products. Under corrosive conditions we recommend the following pretreatment:

Steel/iron: A suitable chemical pre-treatment or sweep blasting.

Aluminium: A chromate coating, a suitable chrome-free pre-treatment or a thin anodised coating.

Physical properties

Tested on:

- 1) Aluminium sheet: 0.8 mm AlMg1 H14 chromatized
- 2) Sheet steel strip-galvanized and chromatized as per GSB for hot-dip galvanization

Coating thickness

- 1) 70 – 90 µm
- 2) 50 – 80 µm

Cross cut test (DIN ISO 2409) 1) GT 0 2) GT 0

Mandrel bending test (DIN ISO 1519) 1) ≤ 5 mm 2) ≤ 12 mm

Impact resistance testing front 1) ≥ 5 Nm 2) ≥ 5.0 Nm (~44 inch pounds)

ASTM D 2794 reverse 1) ≥ 5 Nm 2) ≥ 2.5 Nm* (~44 / 22 inch pounds)

Erichsen cupping (DIN ISO 1520) 1) ≥ 5 mm 2) ≥ 3 mm

Buchholz hardness test (DIN ISO 2815) ≥ 80 (for 1 and 2)

(* 40-50 µm coating thickness at 20-25 °C 1 hour after coating)

Resistance

Tested on:

Aluminium sheet 0.8 mm AlMg1 H14 chromatized

Condensation water test (DIN ISO 6270) 1000 h – no blisters formed
Infiltration at cross-cut less than 1 mm

Salt spray test (DIN ISO 9227) 1000 h – no blisters formed
Infiltration at cross-cut less than 1 mm

After-treatment of coated parts

Appropriate preliminary trials are recommended for printing, sticking, labeling, foil lamination, overcoating and other after-treatment methods. Suitable plasticizer-free materials must be used for the packaging. Condensation water must be avoided.

Touch-up

Our Rep. Set, art. no. 12155, is available for retouching work.

Storage

Storage conditions To be stored in original canister, in cool and dry conditions at max. 25 °C and not exposed to direct sunlight.

Duration of storage Up to 18 months as of production date under the conditions stated.

Safety advice

Lower explosion limit please refer to the safety data sheet

For additional information see the safety data sheet and the CEPE brochures "Sicheres Pulverlackieren" (Safe powder coating) and "Ergebnisse der experimentellen Toxikologiestudie über wärmehärtbare Pulverlacke" (Results of experimental toxicology study on heat-curable powder coatings).

Note:

We have provided the details relating to the properties and use of the specified products set out in this information sheet according to the knowledge available to us and our development work and practical experience. Due to the wide range of possible applications, it has not been possible to include all individual characteristics. In cases of doubt, our application experts are available to provide technical advice. The general terms and conditions of sale otherwise apply.

This leaflet is revised at intervals. If you are unsure about particular details, our sales department will be glad to advise you about the applicability of this documentation.



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