

Technical data sheet

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POLYFLEX® PES-125-GU smooth, outgasing Corona silk-gloss 75

Powder coating with a polyester basis for outdoor applications with good resistance to light and weather conditions, very good dispersion and covering qualities. The product meets the requirements of the GSB for "Industrial coating of hot-dip galvanized components" (GSB ST 663) and has very good out gasing properties. Resistant to over baking and dis coloration 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 gloss, 65-85 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/m² =

density (g/cm³) x coating thickness (µm)

Coating thickness

Recommendation:

70 – 90 µm according to color tone

Maximum:

120 µm

Application

The coating can be applied with all typical electrostatic systems.

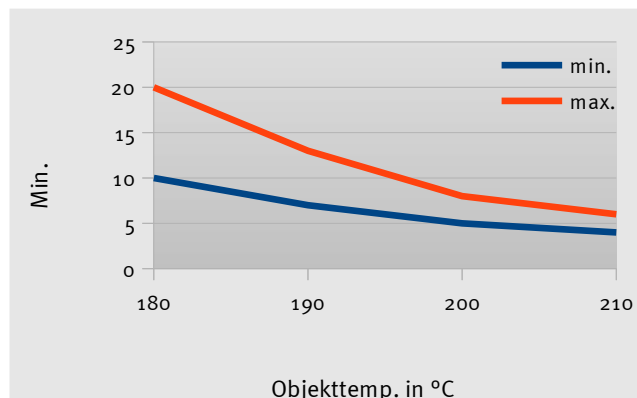
In order to prevent surface blemishes and deterioration of the powder's properties, we recommend that you do not mix this powder coating type with other powder coatings.

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: Hot-dip galvanization with subsequent chromatisation.

Aluminium: Chromatisation, chrome-free pretreatment or thin-layer anodization.

Physical properties

Tested on:

- 1) Aluminium sheet: 0.8 mm AlMg1 H14 chromatised
- 2) Sheet steel strip-galvanized and chromatised 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)
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 chromatised

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

Material approval

GSB Standard 906a

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 40 g/m³

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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