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## Technical Information

### POLYFLEX® EP-20-Korroflexprimer-GU, smooth outgasing Corona Matt 10

Dull matt primer powder based on epoxy resins. The powder exhibits very good outgasing, dispersion and covering properties, along with very good intercoat adhesion for overcoating with a powder coating. Most of the intended applications of the powder coating are for hot-dip and spray-galvanized steel as well as for blasted steel.

**Applications**

Railings, hydrants, all kinds of die-cast parts, fixtures, machine housings, and many more.

**Color tones**

RAL 7035, 7043, 1M1269 PP oxide red, 2M4933 white (approx. RAL 9010), 3M1805 PP olive green, 3M1806 PP black – special tones available on request (minimum volume)

**Surface**

Smooth

**Gloss**

Matt, 5-15 gloss units (60°)

**Powder properties**

**Particle size distribution**  
(HELOS H1708)

smaller than 29 µm: 40 – 47 %  
 smaller than 122 µm: 98 – 100%

**Density**

1.3 – 1.7 g/cm³ depending on color tone; can be specified for each color tone if required.

**Material consumption**

g/m² = density (g/cm³) x coating thickness (µm)

**Coating thickness**

Recommendation: 70 – 90 µm according to color tone  
 Maximum: 150 µm

**Application**

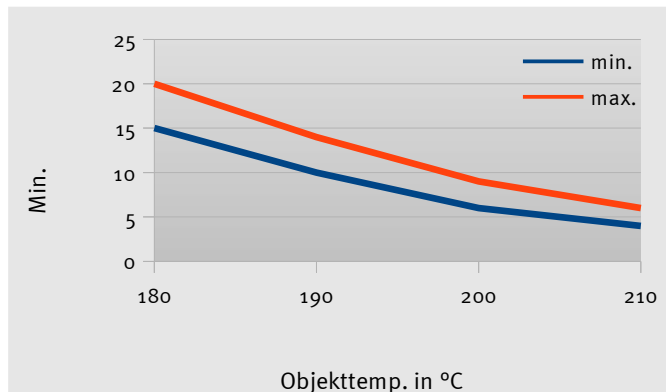
The coating can be applied with all typical electrostatic systems. Superior results regarding outgasing can be obtained by curing the powder primer before coating and not just having it gel. In order to prevent surface blemishes, we recommend that you do not mix this powder coating type with other powder 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 190 °C object temperature**



**Curing conditions:**

- 210°C 4 min. hold time
- 200°C 6 min. hold time
- 190°C 10 min. hold time
- 180°C 15 min. hold time

## Substrates

Zinc, aluminum (alloys), hot-dip or spray-galvanized steel and blasted steel (at least Sa 2½ medium (G)). The substrate to be coated must be free of oil, grease and oxidation products. We recommend the following types of pretreatment:

<b>Zinc / aluminum and alloys:</b>	A suitable (transparent) chromatinization or a similarly thorough chrome-free pretreatment or thin-layer anodization is to be performed.
<b>Steel/iron:</b>	Either blasted with suitable material, <b>purity level at least Sa 2½</b> as per DIN 55928 Part 4 "metallic blank", or pretreated by hot dip-galvanization and wet-chemically, or only wet-chemically (iron or zinc phosphating).

Pretreatment can be carried out using dip or spray methods.

## Physical properties

Tested on:

Steel sheet 0.8mm ST1405 double-pickled V1094

Layer thickness:  
70 – 90 µm

<b>Cross cut test</b> (DIN ISO 2409)	GT 0
<b>Mandrel bending test</b> (DIN ISO 1519)	< 8 mm*
<b>Impact resistance testing</b> ASTM D 2794	front > 5.0 Nm* (~44 inch pounds) reverse > 2.5 Nm* (~22 inch pounds)
<b>Erichsen cupping</b> (DIN ISO 1520)	> 3 mm*
<b>Buchholz hardness test</b>	> 90* (cracks; no peeling with (DIN ISO 2815) adhesive tape visible to the naked eye)

## Resistance

Tested on:

Steel sheet S 235 JR, blasting Sa 2½, degree of roughness (G).

<b>Condensation water test</b> DIN ISO 6270	480 h – no blisters formed Infiltration at cross-cut less than 1 mm
<b>Salt spray test</b> DIN ISO 9227	720 h – no blisters formed Infiltration at cross-cut less than 1 mm

Scoring of sheets as per DIN EN ISO 12944-6 Annex A.  
Scoring tool: van Laar-type scratch tool, Model 426

## 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

<b>Storage conditions</b>	To be stored in original canister, in cool and dry conditions at max. 25 °C and not exposed to direct sunlight.
<b>Duration of storage</b>	Up to 18 months as of production date under the conditions stated.

## Safety advice

**Lower explosion limit** 40 g/m<sup>3</sup>

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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