

## Technical data sheet

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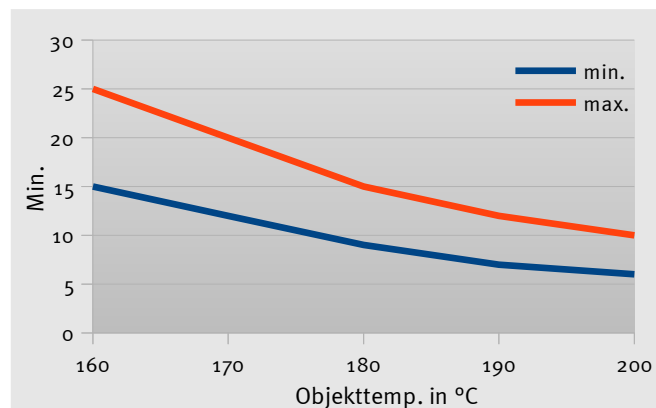
### POLYFLEX® EP-20-Korroflexprimer-NT-GU smooth texture out gassing Corona silk-matt 20

Silk-matt low temperature primer powder based on epoxy resins with very good out gassing, very good smooth, good coverage and very good inter coat adhesion for over coating 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.

<b>Applications</b>	Railings, hydrants, all kinds of die-cast parts, fixtures, machine housings, and many more.
<b>Colour tones</b>	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)
<b>Surface</b>	smooth texture
<b>Gloss</b>	Silk-matt, 10-25 gloss units (60°)
<b>Powder properties</b>	<p><b>Particle size distribution</b> smaller 29 µm: 40 – 47% (HELOS H1708) smaller 122 µm: 98 – 100%</p> <p><b>Density</b> 1.3 – 1.7 g/cm<sup>3</sup> depending on colour tone; can be specified for each colour tone if required</p>
<b>Material consumption</b>	g/m <sup>2</sup> = Density (g/cm <sup>3</sup> ) x Film thickness (µm)
<b>Coating thickness</b>	<p>Recommended 70 – 90 µm according to color tone</p> <p>Maximum 150 µm</p>
<b>Application</b>	The coating can be applied with all typical electrostatic systems. Superior results regarding out gassing 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.
<b>Packaging</b>	<ul style="list-style-type: none"> <li>- 20/25 kg cardboard</li> <li>- 500 kg Octobox</li> <li>- 450/500 kg Big Bag</li> </ul> <p>Other packaging types are available on request.</p>

#### Baking diagram

Curing time recommendation: 15 min by 160 °C object temperature



#### Curing conditions:

200°C	6 min. hold time
190°C	7 min. hold time
180°C	9 min. hold time
170°C	12 min. hold time
160°C	15 min. hold time

## Supports

Steel/iron, hot galvanised substrates, aluminium. The substrate must be free from oil, grease and oxidation products. We recommend the following pretreatments:

### Aluminium and aluminium alloys

A suitable chemical pretreatment

### Steel/iron

Blasting with a suitable blasting agent (cleanliness level at least SA 2.5 in accordance with DIN 55928 part 4, "bare metal") or a suitable chemical pretreatment.

### Hot galvanised substrates

A suitable chemical pretreatment or sweep blasting.

## Physical properties

tested on:

steel sheet 0.8mm ST1405  
double pickled V1094

Film thickness  
70 – 90 µm

**Cross cut test** GT 0  
(DIN ISO 2409)

**Mandrel bending test** ≤ 8 mm\*  
(DIN ISO 1519)

**Impact resistance** front ≥ 5.0 Nm\* (~44 inchpound)  
ASTM D 2794 reverse ≥ 2.5 Nm\* (~22 inchpound)

**Erichsen cupping** ≥ 3 mm\*  
(DIN ISO 1520)

**Buchholz hardness** ≥ 90 \* (cracks; no peeling with (DIN ISO 2815)  
adhesive tape visible to the naked eye)

## Resistance

tested on:

steel sheet S235 JR, blasting SA 2  
½, degree of roughness (G).

**Condensation water test** 480 h no bubble building  
DIN ISO 6270 Infiltration on the scratch track under 1 mm

**Salt spray test** 720 h no bubble building  
DIN ISO 9227 Infiltration on the scratch track under 1 mm

Scoring of sheets as per DIN EN ISO 12944-6 Annex A.

Scoring Tool: van Laar type scratch tool, Model 426

## Material approvals

**Qualisteelcoat PE-0084** with the following structure: steel SA 2.5  
(30-40µm roughness depth),

**C4-H** zinc phosphating, top coat PES-135 (Qualicoat P-1131)

**PE-0086** with the following structure: steel SA 2.5

(30-40µm roughness depth),

zinc phosphating, top coat PUR-151

**C5 M / I long** in accordance with DIN EN ISO 12944-6 – IFO-Report available

## Post treatment of coated parts

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

## Repairs

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 recommendations

**Lower explosion limit** please refer to the safety data sheet

Further information are to find in the safety data sheet and the CEPE booklet „Safe powder coating“ and „Results of the experimental toxicology study on thermosetting powder coatings“.

Comments:

The information on this technical data sheet about the properties and application of the product in question are made on hand of our knowledge, development and practical experience. Because of the multiple possible applications, it is impossible for us to present them all in detail. Our technical consultants are at your disposal for any question you might have. Further more, our general sales and delivery conditions apply.

The technical data sheet is revised periodically. If necessary, our sales department will confirm the validity of this document.



KARL BUBENHOFER AG, Hirschenstrasse 26, CH-9201 Gossau SG  
Tel. +41 (0)71 387 41 41, Fax +41 (0)71 387 43 05, www.kabe-farben.ch