



## Technical data sheet

Article No.: **12809**  
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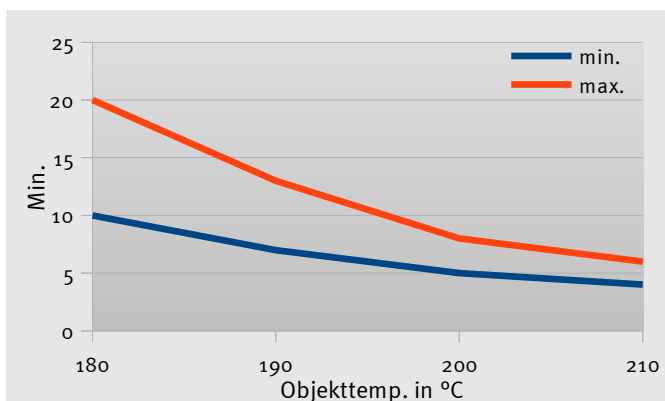
### POLYFLEX® PES-125-GU Metallic smooth texture for gasifying substrates Corona Silk gloss

Metallic powder coatings for outdoor applications on polyester base with good light and weather resistance, very good smooth and excellent opacity. The product has excellent outgassing properties. Stabilized against discoloration and burning gas-fired curing ovens in directly.

<b>Applications</b>	Galvanized steel of all kinds such as railings, grilles, sun protection systems, doors, gates, frames, car parts, machinery and equipment.	
<b>Colours</b>	Colours on request	
<b>Surface</b>	smooth texture	
<b>Gloss</b>	Silk gloss	
<b>Powder properties</b>	<b>Particle size distribution</b> (HELOS H1708)	smaller 29 µm: 40 – 47 % smaller 122 µm: 98 – 100%
	<b>Density</b>	1.4 – 1.7 g/cm <sup>3</sup> can vary depending on the colour; can be specified individually per colour on request.
<b>Material consumption</b>	g/m <sup>2</sup> = Density (g/cm <sup>3</sup> ) x Film thickness (µm)	
<b>Coating thickness</b>	Recommended	70 – 90 µm depending on the colour
	Maximum	120 µm
<b>Application</b>	<p>The application can be made with the usual electrostatic powder coating systems.</p> <p>Please read our technical recommendation for POLYFLEX powder coatings with metallic effect VR003D.</p> <p>To avoid any surface disturbances, we recommend not to mix this type of powder paint with any other powder .</p>	
<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: 10 min. by 180 °C object temperature**



**Curing 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

## Support

Different metals, however mainly on pre-treated aluminum or hot-dip galvanized or powder coated or anti-corrosion dip-coated steel. The support to be coated has to be free of oil, grease and oxidation products. Under exposure to corrosion, we recommend the following pre-treatment:

**Aluminum** Chroma ting, chrome free pre-treatment or thin layer of anodizing coat

**Steel/Iron** Galvanization with subsequent chroma ting

## Physical properties

tested on:

- 1) Aluminium plate 0,8 mm AlMg<sub>1</sub> H<sub>14</sub> chromated
- 2) Steel sheet strip - galvanized and chromated as per GSB for hot-dip galvanization

Film 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

ASTM D 2794

front 1) > 5 Nm

2) > 5,0 Nm (~44 inchpound)

reverse 1) > 5 Nm

2) > 2,5 Nm\* (~44 / 22 inchpound)

### Erichsen cupping

(DIN ISO 1520)

1) > 5 mm

2) > 3 mm

### Buchholz hardness

(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 plate 0,8 mm AlMg<sub>1</sub> H<sub>14</sub> chromated

### Condensation water test

DIN ISO 6270

1000 h no bubble building

Infiltration of the scratch track under 1 mm

### Salt spray test

DIN ISO 9227

1000 h no bubble building

Infiltration of the scratch track under 1 mm

## Post-treatment of coated parts

To print, to paste, to label, to laminate with film, over-coating and other post-treatments , some preliminary testing is recommended. For packaging only use appropriate plasticizers free materials. Condensation must be avoided.

## Repairs

For repairs (conveyors hangers touch ups) the repair kit, art. No 12155 is available.

## Storage

### Storage instruction:

In the original containers, store in a cool and dry environment by max. 25 °C. No direct sun exposure.

### Shelf life

18 months from the date of production under the mentioned conditions

## Safety recommendations

### Under explosion limit

40 g/m<sup>3</sup>

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

Comments:

The information on this technical data sheet relative to the properties and application of the product concerned 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. Furthermore, our general sales and delivery conditions apply.

This 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