

# Technical Data Sheet

## Premium Polyester Powder 5936.-.6100, RAL 6031-F9

Highly weather-resistant powder coating with approval in accordance with VG 95211 for camouflage for exterior use under extreme climatic conditions, dull matt



### Field of application

For exterior and interior coatings with the highest quality and visual requirements for repair and for camouflage painting of military equipment and vehicles.

### Properties

- excellent weather resistance
- excellent gloss and color stability
- excellent camouflage effect in the near infrared spectral range
- good corrosion protection properties
- good chemical resistance
- very high surface hardness
- good mechanical resistance
- excellent cleanability
- outstanding leveling properties
- after appropriate pretreatment, suitable for various metallic substrates (see Coating recommendation)

### Approvals/Permits

Approval in accordance with VG 95211, fulfils the requirements of the Bundeswehr-TL 8010-0002 class IV Typ 3 (approval-no. (extension): WIWeB 440.17.02P43A1.1 (WIWeB report no. R1/0000028923-24 of January 09, 2023))

The approval does not include resistance to chemical warfare agents according to STANAG 4360.

### Technical Data

<b>Basis</b>	Polyester resin
<b>Colours</b>	RAL 6031-F9 (bronze green)
<b>Degree of gloss</b>	dull matt, $\leq 2 \text{ GU}/60^\circ$ and $\leq 8 \text{ GU}/85^\circ$ (in accordance with DIN EN ISO 2813)
<b>Density</b>	1.38 to 1.44 g/cm <sup>3</sup> (in accordance with DIN ISO 8130-2)

## Technical Data

<b>Theoretical coverage</b>	approx. 710 m <sup>2</sup> /kg (with 1 µm dry film thickness)
<b>Grain distribution</b>	< 12 % < 10 µm 40 to 44 % < 32 µm > 94 % < 90 µm (Laser measuring device)
<b>Cross-cut test</b>	Gt ≤ 1 (in accordance with DIN EN ISO 2409) <sup>1)</sup>
<b>Erichsen cupping</b>	≥ 3 mm (in accordance with DIN EN ISO 1520) <sup>1)</sup>
<b>Buchholz hardness</b>	≥ 90 (in accordance with DIN EN ISO 2815)
<b>Salt spray test</b>	delamination at the scribe ≤ 1 mm (in accordance with DIN EN ISO 4628-8) on aluminum substrate <sup>2)</sup> > 1000 h (in accordance with DIN EN ISO 9227-NSS)
<b>Condensation water test</b>	degree of blistering 0 (S0) (in accordance with DIN EN ISO 4628-2) on aluminum substrate <sup>2)</sup> > 1000 h (in accordance with DIN EN ISO 6270-2)
<b>Accelerated weathering QUV-B/SE</b>	after 600 h residual gloss ≥ 50% of initial gloss (in accordance with DIN EN ISO 16474-3)
<b>Outdoor weathering exposure Florida (5° South)</b>	after 3 years residual gloss ≥ 50% of initial gloss (in accordance with ISO 2810)
<b>Impact test</b>	direct: ≥ 20 ip (Tape test) (in accordance with ASTM D 2794-69) <sup>1)</sup>
<b>Labeling</b>	See current safety data sheet.

<sup>1)</sup> at 80 µm film thickness

<sup>2)</sup> with suitable passivation

## Coating recommendation

Substrates <sup>3)</sup>	Prime Coat <sup>4)</sup>	Top Coat
<b>Aluminium/Stainless steel/ Galvanized steel</b> preferably passivated	generally not required	Premium Polyester Powder 5936.-.6100 approx. 80 to 100 µm <sup>5)</sup>
<b>Steel</b> sand-blasted (degree of cleanliness min. SA 2 ½ in accordance with DIN EN ISO 12944, Part 4)	generally not required,  Corro Protect EP 5816 (light gray) 60 to 80 µm	
<b>Steel</b> stained or sand blasted (degree of cleanliness min. SA 2 ½ in accordance with DIN EN ISO 12944, Part 4) and zinc phosphated	Cathodic electrodeposition paint (based on epoxy resin) 15 to 40 µm	

<sup>3)</sup> The substrate must generally be free of grease, oil, separating and drawing agents, as well as dirt and corrosion products and other contaminants (this applies, in particular, to using directly heated gas ovens) and pretreated in accordance with the corrosion protection requirement.

<sup>4)</sup> Steel: with prime coat for highest corrosion protection requirements

<sup>5)</sup> For an optimal camouflage effect, a layer thickness of at least 80 µm is required.

## Process

**Compatibility** There is not any miscibility/compatibility of different batches and powder paint qualities. Surface appearances such as gloss reduction, specks, craters, orange peel effect can result in incompatibility. Appropriate preliminary tests are therefore to be performed, as required.

**Application temperature** 15–25 °C

**Humidity** < 75 % r. h.

## Application

It is generally important to ensure good grounding of the substrate. The fluidizing, conveying, and dosing air must be oil- and condensate-free. In order to achieve a consistent coating quality, it is important to ensure a constant ratio between fresh and recycled powder. The fraction of recycled powder in circulation should generally be below 35 %.

**Corona application** Using appropriate coating programs depending on the parts geometry and application (if applicable, using the current flow restriction). For application systems without current flow restriction:

Voltage:  
70 to 100 kV (for the first coating)  
40 to 50 kV (for overcoating)

## Curing conditions

Duration	Object temperature
10 to 40 min.	at 200 °C

## Packaging

20 kg single cardboard box  
500 kg cardboard box containing 25 polyethylene bags á 20 kg.  
Additional container sizes available on request.

## Shelf life

12 months after receipt.  
Store in a sealed container in a dry place and at room temperature (at most 25 °C). Protect from heat sources and direct sunlight.

**Minimum shelf life** refer to label

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As soon as a new edition of this Technical Data Sheet is issued, the previous specifications become invalid. If you need the current version, please contact your Brillux consultant.

Version 7

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