

## Universal Polyester Powder 5947

Universally usable, silk matt powder coating with very good weathering resistance



### Field of application

For interior and exterior coatings with the highest quality and visual requirements, e.g. construction machinery, fencing, fire doors, garden furniture, soundproof walls, hospital beds, lights, cash boxes, safes, vending machines, etc.

### Properties

- Corresponds to the quality level of "Class 1" or "Florida 1" facade qualities
- Very good weathering resistance
- Very high gloss and color stability
- Good corrosion protection
- High surface hardness
- Very good mechanical parameters
- Very good leveling characteristics
- After appropriate pretreatment, suitable for all common metallic substrates, and for some glass and ceramics
- A film thickness > 100 µm is recommended for the full development of all properties
- Once fully cured (cross-linked), the paint film is physiologically safe

### Material description

<b>Basis</b>	Polyester resin
<b>Color shades</b>	Selected RAL Classic color shades are available at short notice via the quick-delivery service. Additional color shades and special metallics available upon request. Color shifts may occur due to the process. A preliminary test by the user is thus always necessary.
<b>Gloss grade</b>	Silk matt, 20–40 GU/60° (in accordance with DIN EN ISO 2813)
<b>Density</b>	1.45–1.65 g/cm <sup>3</sup> (in accordance with EN ISO 8130-2) <sup>1)</sup>
<b>Theoretical yield</b>	Approx. 645 m <sup>2</sup> /kg (at 1 µm dry layer) <sup>1)</sup>

<sup>1)</sup> depending on the color shade

## Material description

<b>Grain distribution</b>	< 11% < 10 µm 35–50% < 32 µm > 85% < 90 µm (laser measuring device)
<b>Cross cut</b>	Gt 0 C (in accordance with DIN EN ISO 2409)
<b>Cupping index</b>	≥ 5 mm (in accordance with DIN EN ISO 1520)
<b>Buchholz hardness</b>	≥ 80 (in accordance with DIN EN ISO 2815)
<b>Pencil hardness</b>	2 H (Wolff Wilborn Type 291)
<b>Salt spray test</b>	Delamination at the crack ≤ 1 mm (in accordance with DIN EN ISO 4628-2) On aluminum substrate <sup>2)</sup> > 1,000 hours (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> > 1,000 hours (in accordance with DIN EN ISO 6270-2)
<b>Accelerated weathering QUV-B/SE</b>	After 300 hours, the residual gloss ≥ 50% of initial gloss (in accordance with DIN EN ISO 16474-3)
<b>Labeling</b>	See current safety data sheet.

<sup>2)</sup> With a suitable chromium-free passivation

## Coating recommendation

Substrates <sup>3)</sup>	Prime coat <sup>4)</sup>	Top coat <sup>5)</sup>
<b>Aluminum</b> Preferably yellow or green chromated (in accordance with DIN EN 12487) or a chromium-free no-rinse pre-treatment	Corro-Protect EP 5816 light gray 60–80 µm	Universal Polyester Powder 5947 100–120 µm <sup>6)</sup>
<b>Steel</b> preferably iron or zinc-phosphated		
<b>Cast</b>		
<b>Galvanized steel, etc.</b>		

<sup>3)</sup> Generally, the substrate must be free from grease, oil, separating and drawing agents as well as corrosion products and other impurities (this applies to the use of directly fired gas furnaces in particular), and pretreated according to the corrosion protection requirements.

<sup>4)</sup> When using a directly heated gas oven, the intercoat adhesion to the final coating may be reduced due to combustion products. The strength of the bond must therefore be tested in a representative preliminary test.

<sup>5)</sup> or single layer, provided that substrate has been pretreated accordingly

<sup>6)</sup> Dependent on the color shade

## Use

**Compatibility** It is generally not possible to mix other powder coating qualities with each other as they may not be compatible. Surface defects such as gloss reduction, specks, crater, orange peel effect, etc., may result from incompatibility. We recommend application by means of fluid containers. If no fluid container is available, you can also process directly from the container with the vibration function switched on. The recovery stability is limited.

**Application temperature** 15–25°C

**Humidity** < 75% relative humidity

## Application method

**Application method** In general, good grounding of the substrate must be ensured. The fluidizing air, feed air and dosage air must be free of oil and condensate.

**Corona application** Use of appropriate coating programs depending on the geometry of parts and use case (possible use of maximum spray current).  
For application systems without maximum spray current:  
Voltage: 70–100 kV (for the first coat)  
Voltage: 40–50 kV (for additional coats)

**Tribo application** Is not possible

## Stoving conditions

Duration	Object temperature
15–35 minutes	At 180°C
12–25 minutes	At 190°C
10–15 minutes	At 200°C

## Container sizes

20 kg single box

## Storage time

6 months after receipt of goods.  
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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