

Technical Data Sheet

Industrial Polyester Powder

5900 glossy

5901 silk-gloss

5902 matt to silk-matt



Coating powder for both interior and exterior use of industrial applications

Field of application

Interior and exterior coatings meeting the highest qualitative and optical demands, e.g. truck attachments, utility vehicles, agricultural machines, fence systems, garage doors, gas cylinders, lawnmowers, fire extinguishers, garden furniture, sound insulation walls, hospital beds, shower stalls, light fixtures etc.

Properties

- good weather resistance
- high gloss and color stability
- hood corrosion protection
- high surface hardness good to very good mechanical parameter
- excellent abrasion resistance
- very good levelling property
- after suitable pre-treatment suitable for all common metallic surfaces as well as partly for glass
- once fully cured, the paint film is physiologically safe

Technical data

Basis	Polyester resin
Colors	All common color systems.
Degree of gloss	5900 glossy, > 70 GU/60° 5901 silk-gloss, 36 to 70 GU/60° 5902 matt to silk-matt, 10 to 35 GU/60° (according to DIN EN ISO 2813)
Density	1.35 to 1.80 g/cm ³ (in accordance with DIN EN ISO 8130-2) ¹⁾
Theoretical coverage	approx. 635 m ² /kg (at 1 µm dry film thickness) ¹⁾
Grain distribution	< 11 % 10 µm 35–50 % < 32 µm > 85 % < 90 µm (laser measuring instrument)

¹⁾ depending on color

Technical data

Cross hatch	Gt 0 (according to DIN EN ISO 2409)
Erichsen cupping test	≥ 3 to 6 mm (according to DIN EN ISO 1520) ²⁾
Buchholz hardness	≥ 90 (according to DIN EN ISO 2815)
Pencil hardness	2 H (Wolf Wilborn Type 291)
Salt spray test	delamination at scribe ≤ 2 mm (according to DIN EN ISO 4628-8) on zinc-phosphated steel > 1.000 h (according to DIN EN ISO 9227-NSS)
Condensation water test	degree of blistering 0 (S0) (according to DIN EN ISO 4628-2) on zinc-phosphated steel > 1.000 h (according to DIN EN ISO 6270-2)
Accelerated weathering QUV-B/SE	after 200 h residual gloss ≥ 50 % of initial gloss (according to DIN EN ISO 16474-3)
Impact test	reverse: ≥ 10 to 60 ip ²⁾ direct: ≥ 20 to 60 ip ²⁾ (according to ASTM D 2794-69)
Labelling	See current safety data sheet

²⁾ depending on gloss grade

Coating recommendation

Substrates ³⁾	Prime coat	Top coat ⁴⁾
Aluminium preferably yellow- or green-chromated (according to DIN EN 12487) or chromium-free no-rinse pretreatment		
Steel preferably iron or zinc-phosphated	Corro Protect EP 5816 (light-gray) 60 to 80 µm	Industrial Polyester Powder 5900, 5901, 5902 60 to 100 µm ⁵⁾
Cast iron		
Galvanized steel etc.		

³⁾ Generally, the substrate shall be free from grease, oil, separating and drawing agents as well as corrosion products and other impurities (that especially applies to the use of directly fired gasovens) and pretreated according to the corrosion protection requirements.

⁴⁾ Or single layer, provided that substrate has been pretreated accordingly.

⁵⁾ Depending on color

Process

Compatibility Different batches or powder coat qualities cannot always be mixed/ are not always compatible to one another. Surface defects such as gloss reduction, specks, crater, orange peel effect etc. may result from incompatibility. To be sure, appropriate tests shall be carried out before application.

Application temperature 15 to 25 °C

Air humidity < 75 % r.h.

Application

Generally, make sure the substrate is grounded properly. The fluidizing, conveying and dosing air must be free from oil and condensation water. In order to obtain a uniform coating quality, a constant fresh/recovered powder ratio should be maintained. The recovery powder portion in the circulation system should normally be less than 35 %. When processing metallic powder coats, special processing instructions must be followed. Also refer to "Processing Instructions for Brillux Metallic - Powder Coats".

Corona application Depending on geometry of parts and application use corresponding coating-programs (as the case may be with utilisation of limitation of spraying current).

For application-systems without limitation of spraying current:
voltage:

70 to 100 kV (in the case of first coat)

40 to 50 kV (in the case of recoating)

Tribo application possible

Curing conditions

<u>Duration</u>	<u>Object temperature</u>
15 to 35 min.	at 170 °C
10 to 25 min.	at 180 °C
8 to 20 min.	at 190 °C
5 to 15 min.	at 200 °C

Packaging

20 kg single cardboard box
500 kg cardboard box containing 25 polyethylene bags à 20 kg
Further container sizes available upon request.

Shelf life

24 months for solid colors, 12 month for clearcoat, glazes and effect colors after receipt of the goods in the original sealed container. Store in a sealed container in a dry place and at room temperature (at most 25 °C). Protect from heat sources and direct sunlight. Always keep the containers tightly sealed.

Minimum shelf life refer to label

Remark

This Technical Data Sheet is based on intense development work and many years of practical experience. The contents do not constitute any contractual relationship. The user/buyer is not released from his/her obligation to test our products for suitability for the intended application. In addition, our General Terms and Conditions shall apply.

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.

Brillux GmbH & Co. KG Industrielack
Otto-Hahn-Straße 14
59423 Unna
Tel. +49 2303 8805-0
Fax +49 2303 8805-119
info@brillux-industrielack.de
www.brillux-industrielack.de