Brillux Industrial Coatings

Technical Data Sheet

Premium Polyester Powder 5933

Highly weather resistant coarse-texture coating powder for both interior and exterior use

Basis
Polyester resin

Colors
Due to the limited availability of weather-proof pigments, the product range only includes a limited number of different tints.

Gloss grade
Silk gloss to gloss

Properties
- very high weather resistance
- very high gloss and color stability
- very good adhesion on all common metallic substrates
- very good corrosion protection
- high degree of surface hardness
- good mechanical parameters
- good chemical resistance
- covers uneven areas and substrate defects
- limited adhesion of wet paints, screen printing inks, glues, sealants, etc. For this reason, proper adhesion must be verified in each specific case before application.
- once fully cured, the paint film is physiologically safe

Field of application
For exterior and interior coatings with high demands on quality and optical characteristics, e.g. for vending machines, mailboxes, lamps, leisure equipment, garden furniture and equipment etc.

Technical data

Density
1.45 to 1.70 g/cm³ [1]
(in accordance with DIN ISO 8130-2)

Theoretical coverage
approx. 635 m²/kg [1]
(with 1 µm dry film thickness)

Grain distribution

< 11 %	< 10 µm
35 to 50 %	< 32 µm
> 85 %	< 90 µm

(laser measuring instrument)

Cross-hatch test
Gt 0 C
(in accordance with DIN EN ISO 2409)

Erichsen cupping test
≥ 5 mm (tapetest)
(in accordance with DIN EN ISO 1520)

Salt spray test[2]
> 1.000 h
(in accordance with DIN EN ISO 9227-NSS)

Condensation water test[2]
> 1.000 h
(in accordance with DIN EN ISO 6270-2)

Accelerated weathering QUV-B
after 450 h residual gloss ≥ 50 % of initial gloss[3]
(in accordance with DIN EN ISO 16474-3)

Impact test
reverse: ≥ 10 ip (tapetest)
direct: ≥ 20 ip (tapetest)
(in accordance with ASTM D 2794-69)

Labelling
See current safety data sheet.

1 depending on color
2 on chromated aluminium bonder panel
3 Please note for coarse-textured powder coatings that the determination of gloss has to be carried out also visually, due to the fact that the measured gloss-values depend on the characteristic of the texture.

Coating recommendation

Substrates[1]	Prime coat	Top coat
Aluminum/ galvanized steel preferably yellow- or green-chromated (in accordance with DIN EN 12487) **Steel** Sand-blasted (degree of purity at least SA 2 $^1/_2$ in accordance with DIN EN ISO 12944, part 4) or zinc-phosphated	Aluminum normally not necessary Galvanized steel[2] Corro Protect EP 5816 Light-gray 60 to 80 µm Steel[2] Zinc Prime Powder EP 5815 dark-gray 60 to 80 µm	Premium Polyester Powder 5933 approx. 80 µm [3]

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 %. Please also note our Technical Information “Textured coating powders – Important hints for the use of textured coating powders”. When processing metallic powder coats, special processing instructions must be followed. Also refer to "Processing Instructions for Brillux Metallic - Powder Coats".

Corona application
voltage:
70 to 100 kV
(in the case of first coat)
40 to 50 KV
(in the case of overcoating)

Tribo application
possible

Curing conditions

duration:	object temperature:
25 to 40 min.	at 170 °C
20 to 35 min.	at 180 °C
15 to 30 min.	at 190 °C
10 to 25 min.	at 200 °C

[1] Generally, the substrate should 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 pre-treated according to the corrosion protection requirements.
[2] At reduced demands on corrosion protection the prime coat is not always necessary.

[3] depending on color

Packaging

20 kg, 500 kg (25 x 20 kg)
Further container sizes available upon request.

Shelf life

12 months after receipt.
Store in closed container, dry and at room temperature (max. 25 °C). Protect against heat and direct sunlight.

Remarks

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 3

Brillux GmbH & Co. KG Industrielack • AG Münster HR A 4106 • Otto-Hahn-Straße 14 • 59423 Unna
Tel. +49 2303 8805-0 • Fax +49 2303 8805-119 • www.brillux-industrielack.de • info@brillux-industrielack.de