

Industrial- Polyesterpowder 5903

Coarse-texture powdercoat for interior and exterior use, silk-glossy to glossy

Basis

polyester resin

Colours

all colours according to RAL
further colours available upon request

Gloss grade

silk-glossy to glossy

Properties

- very good weather resistance
- high gloss and colour stability
- very good adhesion on all common metallic substrates
- high surface hardness at good mechanical parameters
- covers up uneven surfaces and substrate faults
- after full curing / cross-linking, the paint film is physiologically safe

Field of application

Interior and exterior coatings meeting the highest qualitative and optical demands, e.g. construction machines, fence systems, fire-proof doors, fire extinguishers, garden furniture, sound insulation walls, hospital beds, lamps, cash boxes, safes, automatic machines etc.

Technical data

Density

1,45 to 1,70 g/ml ¹⁾
(according to DIN ISO 8130-2)

Theor. coverage

approx. 8,0 m²/kg ¹⁾
(with 80 µm)

Grain distribution

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

(laser measuring instrument)

Cross-hatch

Gt 0 C (according to DIN EN ISO 2409)

Erichsen cupping test

≥ 3 mm (according to DIN EN ISO 1520)

Salt spray test

> 250 h ²⁾
(according to DIN 50021-SS)

Condensation water test

> 250 h ²⁾ (according to DIN EN ISO 6270-2)

Accelerated weathering

QUV-A

> 1.000 h (according to DIN EN ISO 11507)

Impact test

reverse: ≥ 10 ip
direct: ≥ 20 ip
(according to ASTM D 2794-69)

Labelling

see current safety data sheet

¹⁾ depending on colour

²⁾ In combination with suitable primers (see coating suggestion), the values for salt spray and condensation water tests increase to > 1.000 h.

Coating recommendation

Substrates ¹⁾	Prime coat ²⁾	Top coat ³⁾
Aluminium preferably yellow- or green-chromated (according to DIN 50939) or chromium-free no-rinse pretreatment	Zinc Prime Powder EP 5815 (dark-grey) 60 to 80 µm	Industrial-Polyesterpowder 5903 70 to 90 µm ⁴⁾
Steel preferably iron or zinc-phosphated	Corro Protect EP 5816 (light-grey) 60 to 80 µm	
Cast iron		
Galvanized steel etc.		

- 1) 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.
- 2) In order to obtain an optimum adhesion in the case of a double-layer coating system in the powder area, the powder primer may only be precured. An object temperature of 110 - 130°C is recommended for this at a holding time of 8 to 10 minutes. If the prime coat is fully cured, adhesion problems may occur.
- 3) Or single layer, provided that substrate has been pre-treated accordingly.
- 4) depending on colour

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

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:
5 to 15 min. at 200 °C
8 to 20 min. at 190 °C
10 to 25 min. at 180 °C
15 to 35 min. at 170 °C

Packaging

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

Storage

1 year after receipt.

Store in closed container, dry and at room temperature (max. 25 °C). Protect against heat and direct sun impact.

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 its obligation to test our products for suitability for the intended application. In addition to that, our General Terms and Conditions shall apply.

As soon as a new edition of this Technical Data Sheet is issued, the previous specifications will become invalid.

If you need the current version, please consult your Brillux contact.

Version 1

Brillux Industrial Coatings

Otto-Hahn-Str. 14

59423 Unna

Germany

Phone +49 (0)2303 8805-0

Fax +49 (0)2303 8805-119

www.brillux.com

industrialcoatings@brillux.com