

Steriface Powder EP/PE

5681 silk gloss

5682 matt to silk matt

Mixed coating powder for the protecting and decorative design of surfaces for medical technology and similar applications with additional effective protection against bacteria and fungi.



Field of application

As a functional and decorative interior coating on e.g. sanitary accessories, medical equipment, laboratory furnishing, metal fittings, shower cabins, domestic appliances, shop and trade fair design, lamps and light fixtures, machine parts, radiators, rack construction, switching panels, steel furniture, transport trolleys, doors and door frames etc.

Properties

- good corrosion protection
- high degree of surface hardness
- good mechanical values
- good levelling properties
- good antimicrobial effect¹⁾
- after pretreatment the paint is suitable for all common metal surfaces as well as partly for glass

¹⁾ Corresponding test certificates on antimicrobial effectiveness are available on request.

Approvals / Permits

Certificates on antimicrobial properties against mixtures of fungi (*Aspergillus niger* DSM/1988, *Penicillium funiculosum* DSM 2213, *Aureobasidium pullulans* IHEM 18556) and bacterial strains (*Escherichia coli* DSM 1576/ATCC8739, *Staphylococcus aureus* DSM 799/ATCC 6538, *Staphylococcus aureus* MRSA DSM 21979), Test reports Dr. Brünke MTC from 20/03/2018 and 06/07/2018

Tests according to the Japanese Norm JIS Z 2801 in an ISO 9000/9001 certified microbiology laboratory proofed on especially equipped Brillux powders showed an excellent activity against bacteria strains *staphylococcus aureus* and *klebiella pneumoniae*.

Technical Data

Basis	A combination of polyester- and epoxy resin
Colors	All common color systems
Degree of gloss	5681 silk gloss, 36–70 GU/60° 5682 matt to silk matt, < 36 GU/60° (in accordance with DIN EN ISO 2813)
Density	1,45 to 1,70 g/cm ³ (in accordance with DIN ISO 8130-2) ²⁾
Theoretical Coverage	ca. 635 m ² /kg (with 1 µm dry film thickness) ²⁾
Grain distribution	< 11 % < 10 µm 35–50 % < 32 µm > 85 % < 90 µm (laser measuring instrument)
Cross-cut test	Gt 0 C (in accordance with DIN EN ISO 2409)
Erichsen cupping	≥ 3–6 mm (in accordance with DIN EN ISO 1520) ³⁾
Buchholz hardness	≥ 90 (in accordance with DIN EN ISO 2815)
Pencil hardness	2 H (Wolff-Wilborn Type 291)
Salt spray test	Delamination at the scribe ≤ 2 mm (in accordance with DIN EN ISO 4628-8), On iron-phosphated steel > 250 h (in accordance with DIN EN ISO 9227-NSS)
Condensation water test	Degree of Blistering 0 (S0) (in accordance with DIN EN ISO 4628-2) On iron-phosphated steel > 250 h (in accordance with DIN EN ISO 6270-2)
Impact test	revers: 10–60 ip ³⁾ direct: 20–60 ip ³⁾ (in accordance with ASTM D 2794-69)
Labeling	See current safety data sheet

²⁾ depending on color
³⁾ depending on gloss

Coating recommendation

Substrates ⁴⁾	Prime coat	Top coat ⁵⁾
Aluminium, suitable passivated	n/a	Steriface Powder EP/PE 5681, 5682 60–100 µm
Steel, preferably iron or zinc-phosphated		
Galvanized Steel, suitable passivated or swept		

⁴⁾ 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.

⁵⁾ For the above applications, generally single-coat application on appropriately pretreated substrate.

Process

Compatibility	Different batches or powder coat qualities 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 % relative humidity

Application

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 overcoating)
Tribo-application	is possible

Curing conditions

5681	Duration	Object temperature
	20 to 50 min.	at 170 °C
	12 to 30 min.	at 180 °C
	10 to 20 min.	at 190 °C
5682	Duration	Object temperature
	30 to 50 min.	at 170 °C
	15 to 30 min.	at 180 °C
	10 to 20 min.	at 190 °C

Container sizes

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

Shelf life

	24 months for solid colors, 12 months for clearcoats, glazes and effect colors after receipt. Store in a sealed container in a dry place and at room temperature (at most 25 °C). Protect against heat sources and direct sunlight.
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.

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