

Technical Data Sheet

Eco Mixed Powder EP / PE

5660 gloss

5661 silk gloss

5662 matt to silk matt

Material-saving thin-layer mixed coating powder for interior use only



Field of application

As a decorative interior coating on e.g. steel furniture, shelving, light frames, tool-boxes, interior doors, computer housing, machine parts, furniture fittings, shop design, transport trucks, refrigerators, microwave ovens, etc.

Properties

- allow material savings due to low layer thicknesses
- good chemical resistance
- high degree of surface hardness at good to very good mechanical parameters
- very good levelling properties
- after pre-treatment suitable for all common metallic surfaces as well as for example glass and ceramics
- once fully cured, the paint film is physiologically safe

Technical Data

Basis	A combination of polyester- and epoxy resin
Color	Upon request
Degree of gloss	5660 gloss, > 70 GU / 60° W 5661 silk gloss, 36 to 70 GU / 60° W 5662 matt to silk matt, < 36 GU / 60° W (in accordance with DIN EN ISO 2813)
Density	1.40 to 1.90 g/cm ³ ¹⁾ (in accordance with DIN ISO 8130-2)
Theoretical coverage	approx. 600 m ² /kg ¹⁾ (with 1 µm dry film thickness)
Grain distribution	< 15 % < 10 µm 50 to 70 % < 32 µm > 98 % < 90 µm (laser measuring)
Cross-hatch test	Gt 0 C (in accordance with DIN EN ISO 2409)
Erichsen cupping	≥ 5 mm (in accordance with DIN EN ISO 1520)
Buchholz hardness	≥ 90 (in accordance with DIN EN ISO 2815)
Pencil hardness	2 H (Wolff-Wilborn Type 291)

¹⁾ depending on color

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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	reverse: ≥ 20 ip direct: ≥ 40 ip (in accordance with ASTM D 2794-69)
Labeling	See current safety data sheet.

Coating suggestion

Substrates ²⁾	Prime coat	Top coat ³⁾
Aluminium preferably yellow- or green-chromated (according to DIN EN 12487) or chromium-free no-rinse pretreatment	Corro Protect EP 5816 (light-gray) 60 to 80 μm	Eco Mixed Powder EP / PE 5660, 5661, 5662 $\geq 40 \mu\text{m}^4$
Steel preferably iron or zinc-phosphated		
Cast iron		
Galvanized steel etc.		

- 2) 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.
- 3) For the above pre-treated substrates one coating should be applied.
- 4) 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
Humidity	< 75 % relative humidity

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 note our Technical Information "Textured coating powders – Important information on 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 Using appropriate coating programs depending on the parts' geometry and application situation (if applicable, using the current flow restriction). For application systems without current flow restriction:
Voltage:
60 to 70 KV (for the first coating)
approx 50 KV (for overcoating)

Tribo application possible

Curing conditions

5560, 5561	Duration	Object temperature
	20 to 50 min.	at 170 °C
	12 to 30 min.	at 180 °C
	10 to 20 min.	at 190 °C
	8 to 15 min.	at 200 °C
5662	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, 500 kg (25 polyethylene bags of 20 kg each)
Further container sizes available on request.

Shelf life

12 months after receipt. 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. Protect the contents from surface drying and drying out. Dried paint residues and surface-dried skin are insoluble in paint and can only be removed by sieving.

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 4.

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