Technical Data Sheet

Superhybrid Powder EP/AC

5850 gloss
5851 silk gloss
5852 silk matt

Superhybrid quality with optimized UV resistance compared to standard mixed powder coating systems

Field of application

As a decorative interior coating on e.g. steel furniture, racks, light frames, wire goods, tool boxes, interior doors, fire extinguishers, computer housing, machine parts, furniture fittings, shop design, transport trolley, microwave ovens, laboratory attachment, hospital furniture, medicinal demand, etc.
In the case of secondary equipment, limited exterior use is possible.

Approvals / Permits

5850 Test and approval about the physiological safety, Institut für Lackprüfung, Gießen, Prüfbericht Nr.: 12-12-99 A+B

Properties

- very good resistance to disinfectant cleaning agents
- optimized UV resistance compared to standard mixed powder-coating-systems
- good corrosion protection
- excellent chemical resistance
- very high degree of surface hardness
- very good mechanical values
- very good levelling properties
- after pretreatment the paint is suitable for all common metal surfaces
- once fully cured, the paint film is physiologically safe

Technical Data

Basis A combination of polyester- and epoxy resin, modified

Colors

5850:	all common color systems
5851 und 5852:	upon request

Degree of gloss
5850 gloss, > 70 GU/60°
5851 silk gloss, 36–70 GU/60°
5852 silk matt, 16–35 GU/60°
(in accordance with DIN EN ISO 2813)
The measured reflectometer value may deviate in the case of metallic colors.

Brillux Industrial Coatings

Technical Data

Density	1,45 to 1,70 g/cm³ (in accordance with DIN ISO 8130-2)[1)]
Theoretical coverage	approx. 635 m²/kg (with 1 µm dry film thickness)[1)]
Grain distribution	< 11 % < 10 µm 35–50 % < 32 µm > 85 % < 90 µm (laser measuring instrument)
Cross-cut test	Gt 0 (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)
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)
Accelerated weathering Xenontest	After 500 h residual gloss ≥ 50 % of initial gloss (in accordance with DIN EN ISO 11341)
Impact test	revers: ≥ 5 ip direct: ≥ 10 ip (in accordance with ASTM D 2794-69)
Labeling	See current safety data sheet

[1)] depending on color

Coating recommendation

Substrates[2)]	**Prime coat**	**Top coat[3)]**
Aluminium preferably yellow- or green-chromated (in accordance with DIN EN 12487) or chromium-free no-rinse pretreatment	n/a	Superhybrid Powder EP/AC 5850, 5851, 5852 60–100 µm[4)]
Steel preferably iron or zinc-phosphated		
Cast iron		
Galvanized Stahl 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 applications, generally single-coat application on appropriately pre-treated substrate.

[4)] depending on color

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

Duration	Object temperature
25 to 40 min.	at 190 °C
15 to 25 min.	at 200 °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 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 5.

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