

Technical Data Sheet

Super NT Polyester Powder 5923

Very efficient low cure temperature coating powder with coarse texture appearance and curing conditions starting from 150 °C for both interior and exterior use, silk gloss to gloss



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, vending machines etc.

Properties

- very efficient curing conditions good weather resistance
- high gloss and color stability
- good protection against corrosion
- high surface hardness
- good mechanical values
- covers uneven areas and substrate defects
- after pre-treatment suitable for all common metallic surfaces
- once fully cured, the paint film is physiologically safe

Technical Data

Basis	Polyester resin
Color	All common color systems
Degree of gloss	Silk gloss to gloss
Density	1.40 to 1.70 g/cm ³ ¹⁾ (in accordance with DIN ISO 8130-2)
Theoretical coverage	approx. 645 m ² /kg ¹⁾ (with 1 µm dry film thickness)
Grain distribution	< 11 % < 10 µm 35 to 50 % < 32 µm > 85 % < 90 µm (laser measuring)
Cross-hatch test	Gt 0 C (in accordance with DIN EN ISO 2409)
Ericksen cupping	≥ 5 mm (in accordance with DIN EN ISO 1520)

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 zinc-phosphated steel > 750 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 zinc-phosphated steel > 750 h (in accordance with DIN EN ISO 6270-2)
Accelerated weathering QUV-B/SE	after 200 h: residual gloss ≥ 50 % of initial gloss (according to DIN EN ISO 16474-3) ²⁾
Impact test	direct: ≥ 20 ip (in accordance with ASTM D 2794-69)
Labeling	See current safety data sheet.

²⁾ 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 suggestion

Substrates ³⁾	Prime coat	Top coat ⁴⁾
Aluminium preferably yellow- or green-chromated (according to DIN EN 12487) or chromium-free no-rinse pretreatment Steel preferably iron or zinc-phosphated (chromium VI-free passivated) or zinc-phosphated Cast iron Galvanized steel etc.	n/a	Super NT Polyester Powder 5903 70 to 90 μm ⁵⁾

³⁾ 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 pre-treated according to the corrosion protection requirements.

⁴⁾ If the substrate has been pre-treated accordingly.

⁵⁾ 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:

70 to 100 kV (for the first coating)

40 to 50 kV (for overcoating)

Tribo application possible

Curing conditions

Duration	Object temperature
12 to 35 min.	at 150 °C
8 to 25 min.	at 160 °C
5 to 20 min.	at 170 °C
3 to 16 min.	at 180 °C

Container sizes

20 kg, 500 kg (25 polyethylene bags of 20 kg each).
Further container sizes available on request.

Shelf life

6 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.

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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