

TECHNICAL DATA SHEET

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POLYFLEX® PES-55-NT structure rough, fast-reacting Corona silk-gloss

Description: Low-temperature powder with a rough structure for indoor use based on polyester and epoxy resins. Yields surfaces with a rough, round, evenly spread, silk-gloss structure. The resistances are dependent on the respective layer thickness (see recommended layer thickness). Resistant to overbaking and discolouration in direct gas-fired ovens. Universal use indoors.

Applications: Metal furniture, shelving parts, switching cabinets, wardrobes, machine housings, lamp housings, kitchen appliances, etc.

Colours: All colours with some restrictions

Surface: Rough structure

Gloss: Visually silk-gloss

Powder properties:

Particle size distribution (HELOS H1708)	smaller 29 µm: 38 – 45 % smaller 122 µm: 98 – 100%
Density	1.4 – 1.8 g/cm³ can vary depending on the colour; can be specified for each individual colour

Material consumption: **g/m² =** density (g/cm³) x film thickness (µm)

Coating thickness: **Recommended** 80 – 100 µm depending on the colour tone (closer to 120 µm in the case of white)

Application: The application can be made with the usual electrostatic powder coating systems. This type of structural powder coating is very sensitive to foreign powder dust (coloured points) and can cause small craters in the dispersed coating. In order to prevent surface blemishes, we recommend that you do not mix this powder.

Packaging:

- 20/25 kg cardboard
- 500 kg Octobox
- 450/500 kg Big Bag

Other packaging variations are available on request.

Curing time: **Recommended**
10 min at 160 °C object temperature

Curing conditions:	Object temperature	Minutes hold time
	200 °C	3 min. hold time
	180 °C	5 min. hold time
	160 °C	10 min. hold time
	140 °C	27 min. hold time

Substrates: Various metals or as a finishing coat – for example, over a KTL primer. The substrate to be coated must be free of oil, grease and oxidation products. Under punishing conditions we recommend the following pretreatment:

Aluminum	A suitable chemical pretreatment
Steel/Iron	Iron or zinc phosphating

The pre-treatments can both be applied by dipping or spraying methods.

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Physical properties: Tested on: Steel sheet 0.8mm ST1405 pickled twice V1094 Layer thickness: 80 – 90 µm	Cross cut test (DIN ISO 2409)	GT 0
	Mandrel bending test (DIN ISO 1519)	1) ≤ 5 mm
	Impact resistance ASTM D 2794	1) front ≥ 10 Nm (~88 inchpound)
	Erichsen cupping (DIN ISO 1520)	1) reverse ≥ 10 Nm (~88 inchpound)
		1) ≥ 7 mm
Resistance: Tested on: steel sheet iron phosphated	Condensation water test DIN ISO 6270	500 h no bubble building Infiltration on the scratch track under 1 mm
	Salt spray test DIN ISO 9227	240 h no bubble building Infiltration on the scratch track under 1 mm
Post treatment of coated parts:	To print, to paste, to label, to laminate with film, over-coating and other post-treatments , some preliminary testing is recommended. For packaging only use appropriate plasticizers free materials. Condensation must be avoided.	
Repairs:	For repairs (conveyors hangers touch ups) the repair kit, art. No 12155 is available.	
Storage:	Storage instruction:	In the original containers, store in a cool and dry environment by max. 25 °C. No direct sun exposure.
	Shelf life	18 months from the date of production under the mentioned conditions.
Safety recommendations.	Lower explosive limit	Please refer to the safety data sheet.
	Further information are to find in the safety data sheet and the CEPE booklet „Safe powder coating“ and „Results of experimental toxicology study on thermosetting powder coatings“.	
Comments:	The information on this technical data sheet relative to the properties and application of the product concerned are made on hand of our knowledge, development and practical experience. Because of the multiple possible applications, it is impossible for us to present them all in detail. Our technical consultants are at your disposal for any question you might have. Furthermore, our general sales and delivery conditions apply. This technical data sheet is revised periodically. If necessary, our sales department will confirm the validity of this document.	