

TECHNICAL DATA SHEET

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 Version: 5

POLYFLEX® PES-50 rough structure Corona silk-matt

Description:	Powder paint with rough structure for interior use on the basis of polyester and epoxy resins with excellent covering power and good resistance to chemicals. Curing can take place above 180 °C.	
Applications:	Metal furniture, shelves elements, machine casings, etc.	
Colours:	Many colours; very bright colours are not recommended (yellowing)	
Surface:	Rough structure	
Gloss:	Visually silk-matt	
Powder properties:	Particle size distribution (HELOS H1708)	smaller 29 µm: 38 – 45 % smaller 122 µm: 98 – 100%
	Density	1.3 – 1.7 g/cm ³ can vary depending on the colour; can be specified for each individual colour
Material consumption:	g/m² =	density (g/cm ³) x film thickness (µm)
Coating thickness:	Recommended	80 – 100 µm depending on the colour tone
	Maximum	150 µm
Application:	The application can be made with the usual electrostatic powder coating systems, Tribo or Corona. The powder tends to yellowing, the baking process is therefore devote most attention. To avoid any surface disturbances, we recommend not to mix this type of powder paint with any other powder paint. Do not burn with other powder coatings together in the same oven.	
Packaging:	<ul style="list-style-type: none"> - 20/25 kg cardboard - 500 kg Octobox - 450/500 kg Big Bag Other packaging variations are available on request.	
Curing time:	Recommended	13 min at 180 °C object temperature
Curing conditions:	Object temperature	Minutes hold time
	210 °C	4 min. hold time
	200 °C	6 min. hold time
	190 °C	8 min. hold time
	180 °C	13 min. hold time
Substrates:	Various metals, but primarily as top coat on a KTL pre-treated surface. The support to be coated has to be free of oil, grease and oxidation products. Under exposure to corrosion, we recommend the following pre-treatments:	
	Aluminum	A suitable chemical pretreatment
	Steel/Iron	Iron or zinc phosphating

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Physical properties: Tested on: Steel sheet 0.8mm ST1405 double-pickled V1094 Layer thickness: 80 – 100 µm	Cross cut test (DIN ISO 2409) GT 0 Mandrel bending test (DIN ISO 1519) 1) ≤ 8 mm Impact resistance ASTM D 2794 1) front ≥ 5 Nm (~44 inchpound) 1) reverse ≥ 2.5 Nm (~22 inchpound) Erichsen cupping (DIN ISO 1520) 1) ≥ 2 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.