

TECHNICAL DATA SHEET

Article No.: 13546

Version: 6

POLYFLEX® PES-166-NT-UDS-S smooth thin coat Corona silk matt

Description:	Low bake thin coat powder for outdoor use based on polyester resins. Gives silk matt surfaces with good flow and good light and weather resistance. Stabilized against overcuring and discoloration in directly gas fired ovens.		
Applications:	Noise barriers, enclosures, sun protection systems, garden furniture, gardening dools, air conditioners and fans, doors and gates and many more		
Colours:	Almost any colour with few limitations		
Surface:	Smooth		
Gloss:	Visually silk matt		
Powder properties:	Particle size distribution (HELOS H1708)	7 µm:	8 – 13 %
		31 µm:	61 – 66 %
	Density	1.4 – 1.8 g/cm ³ can vary depending on the colour; can be specified for each individual colour	
Material consumption:	g/m ²	= density (g/cm ³) x film thickness (µm)	
Coating thickness:	Recommended	40 – 80 depending on the color (for white ≥ 70-80 µm)	
	Maximum	80 µm	
Application:	The application can be made with all standard powder coating systems. To avoid surface defects and to prevent deterioration of the properties, we recommend not mixing this type of powder coating with other powder coatings.		
Packaging:	<ul style="list-style-type: none"> - 20/25 kg cardboard box - 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	
	Object temperature	Minutes hold time min	Minutes hold time max
	200°C	4 min	8 min
	190°C	5 min	10 min
	180°C	6 min	12 min
	170°C	8 min	15 min
	160°C	10 min	20 min
	Substrates:	Various metals, but mainly on appropriately pre-treated aluminium and hot-dip galvanized steel or steel primed with powder paint or KTL. The substrate to be coated must be free of oil, grease and oxidation products. We recommend the following pre-treatment under corrosion stress:	
	Aluminium	A suitable wet-chemical pretreatment or sweeping	
	Steel	Iron or zinc phosphating	
Physical properties:	Tested on 1): Aluminium panel 0.8 mm AlMg1 H14 chromated Layer thickness: 40 – 60 µm		
	Cross Cut test (DIN ISO 2409)	1) GT 0	

	Mandrel bending test (DIN ISO 1519)	1) ≤ 5 mm
	Impact resistance (ASTM D 2794)	1) front ≥ 2.5 Nm (~22 Inchpound) 1) reverse ≥ 2.5 Nm (~22 Inchpound)
	Erichsen cupping (DIN ISO 1520)	1) ≥ 5 mm
Resistance:	Tested on: Aluminium panel 0.8 mm AlMg1 H14 chromated	
	Condensation water test (DIN ISO 6270)	1000 h no blistering Infiltration on the scratch track under 1 mm
	Salt spray test (DIN ISO 9227)	1000 h no blistering Infiltration on the scratch track under 1 mm
Material Approvals:	-	
Repairs:	For repairs (conveyors hangers touch ups) the repair kit, art. No 10006124 is available.	
Post treatment of coated parts:	Appropriate preliminary tests are recommended for printing, gluing, labeling, film lamination, overcoating and other post treatments. Suitable plasticizer free materials are to be used for the packaging. Avoid condensation.	
Storage:	Storage instruction:	In the original containers, store in a cool and dry environment at 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 can be found in the safety data sheet and the CEPE brochures "safe powder coating guideline" and "results of the experimental toxicological studies on thermosetting powdercoatings".	
Comments:	The information in 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.	
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