Technical Data Sheet





PL1003A FREOPOX-Powder Coating

Product description

Product technology	Powder coating for interior use		
Application area	e.g. in the construction and sanitary sector		
Surface	smooth		
Gloss value	satin glossy		
Running properties	good		
Gas furnace stability	very good		
Surface hardness	good		
Mechanical resistance	good		

General product properties

Binder-Base	epoxy polyester resin			
Colour	All common colour shades			
Gloss value	satin glossy	55-70 GU, Angle 60°	DIN EN ISO 2813	
Density	1,2-1,7 g/cm ³ depending on the shade		theoretical	
Resistance to storage	approx. 36 month in original packagings at an ambient temperature of 5 to 25 °C. Powder coatings must be stored in a cool and dry place.			
	The minimum storage stability of each batch is stated on the product label. The material does not necessarily become unusable if stored for longer than this period. However, for quality assurance purposes, an inspection of these materials is essential to ensure that they are still suitable for the intended application.			

Application and processing

Pretreatment	The substrate must be free of adhesion-impairing substances such as oil, grease, rust, scale, mill scale, wax and release agent residues. We recommend the use of suitable mechanical pre-treatment processes (e.g. blasting, grinding) or chemical pre-treatment processes (e.g. phosphating) according to the requirements.		
Recommended coating thickness	60-80 μm		
Material usage	approx. 0,1 kg/m², layer thickness 70 μm	theoretical	
Processing	Corona, Tribo		

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Curing	Recommended object temperature 10 min/160 °C. Baking window tested in colour shade 9010.
	210
	200
	190
	· · · · · · · · · · · · · · · · · · ·
	170
	160
	150
	0 5 10 15 20 25 30 35 40 45 50 55 60 65 t [min]
	Objekt Temperatur in °C Object Temperature in °C 160 180 200
	Haltezeit Minimum in Minuten Holding time minimum in minutes 10 8 5
	Haltezeit Maximum in Minuten 60 30 15 Holding time maximum in minutes
Note on curing	Coloured area = stoving conditions with good end properties
	The displayed baking conditions are based on results from laboratory tests and therefore merely serve as a guideline when configuring the processing company's coating systems. The processing company is responsible for ensuring that the coating is fully cured. The complete curing of the coating must be checked by means of additional analytical and resistance tests using representative original parts under production conditions. Please d not hesitate to contact us if you require consultation.
Compatibility	Compatibility with other powder coatings must be checked.
Further processing	of coated pieces
Touch-up coating	on request. For details see EFD Info No. 4
Mechanical tests	
Sample description	On steel plate 60-80 µm layer thickness 10 minutes 160°C object temperature product PL1003ARG910
Cross-cut-test	Gt 0 DIN EN ISO 2409
Cupping test	>3 mm DIN EN ISO 1520

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Climatic tests					
Sample description	On iron-phosphated steel plate product PL1003ARG910				
Condensate constant climate	Load duration Detachment Cut	500 h <1 mm	DIN EN ISO 6270-2 (CH) DIN EN ISO 4628-8		
Neutral salt spray test	Load duration Detachment Cut	240 h <1 mm	DIN EN ISO 9227 (NSS) DIN EN ISO 4628-8		
Chemical resistance					
Influencing factors	The chemical resistance depends on the concentration, temperature, exposure time and test method. This has to be checked depending on the application.				
Comments					
Work-and Healthprotection	The standard personal safety precautions must be observed when handling painting materials. Detailed information about dangerous goods, safety data and recommendations concerning Health and Safety at Work and environmental protection can be found in the corresponding safety data sheet.				
Test conditions	All information is based on a standard climate 23/50 DIN EN 23270. All information is based on our product knowledge an experience. We have no direct influence on the application itself. Please do not hesitate to contact us for further information.				
	The information provided h specification.	ere contains reference values a	and does not constitute a		

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