PU5103B
FREIOTHERM-Powder Coating

Product description

Product technology	Powder coating for decorative and technical indoor application
Application area	e.g. in the functional furniture and storage technology sector
Surface	smooth
Gloss value	satin glossy
Resistance to light and weather	very good
Chemical resistance	very good

General product properties

Binder-Base	polyurethane (non-separating)		
Gloss value	satin glossy	58-72 GU, Angle 60°	DIN EN ISO 2813
Density	1,2-1,7 g/cm³ 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	60-90 µm	
Material usage	approx. 0,1 kg/m², layer thickness 70 µm	theoretical
Processing	Corona	

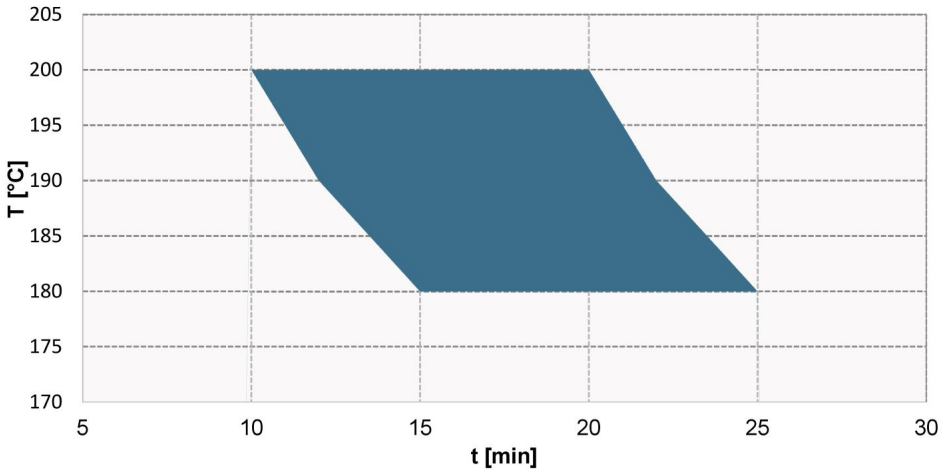
Our technical data sheets are to provide you with advice based on our latest state of knowledge.
This guidance does not release you from your own obligation to test our products for their suitability for your intended purposes and applications.
The sale of our products is in accordance with our terms of business, delivery and payment.

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Curing	Recommended object temperature 10 min/190 °C. Baking window tested in colour shade RAL 1004.



Objekt Temperatur in °C Object Temperature in °C	180	190	200
Haltezeit Minimum in Minuten Holding time minimum in minutes	15	12	10
Haltezeit Maximum in Minuten Holding time maximum in minutes	25	22	20

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 do not hesitate to contact us if you require consultation.
Compatibility	Compatibility with other powder coatings must be checked.

Mechanical tests

Mandrel bending test conical	6mm	DIN EN ISO 6860
Sample description	On steel plate 60-90 µm layer thickness 10 minutes 190°C object temperature product PU5103BU2002	
Cross-cut-test	Gt 0	DIN EN ISO 2409
Cupping test	>5 mm	DIN EN ISO 1520

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Climatic tests

Sample description	On zinc-phosphated steel plate 60-90 µm layer thickness 10 minutes 190°C object temperature product PU5103BU2002		
Condensate constant climate	Load duration Detachment Cut	480 h <1 mm	DIN EN ISO 6270-2 (CH) DIN EN ISO 4628-8
Neutral salt spray test	Load duration Detachment Cut	480 h <3 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 here contains reference values and does not constitute a specification.

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