PP1011E
FREIOTHERM-Powder Coating

Product description

Product technology	Powder coating for decorative use on exteriors
Application area	e.g. in the functional furniture and storage technology sector
Surface finish	Metallic effect
Surface	micro structure
Gloss value	mat
Production process	bonded
Surface hardness	good
Mechanical resistance	good
Resistance to light and weather	good

General product properties

Binder-Base	polyester resin	
Colour	All common colour shades	
Gloss visually	matt	
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	Uniform surface structure across a range of 70 to 110 µm	
Material usage	approx. 0,12 kg/m², layer thickness 80 µm	theoretical
Processing	Corona, Tribo	

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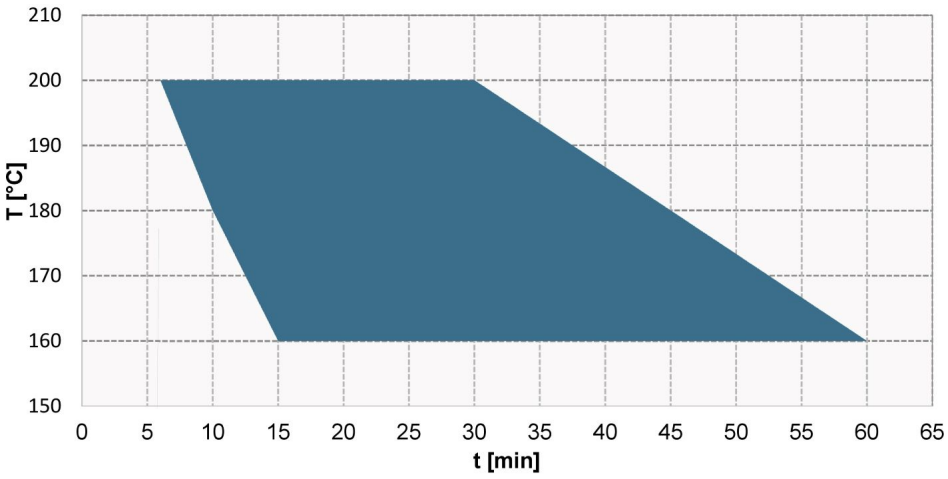
Curing	Recommended object temperature 10 min/180 °C. Baking window tested in colour shade W2400.



Objekt Temperatur in °C Object Temperature in °C	160	180	200
Haltezeit Minimum in Minuten Holding time minimum in minutes	15	10	6
Haltezeit Maximum in Minuten Holding time maximum in minutes	60	45	30

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.

Further processing of coated pieces

Touch-up coating	on request. For details see EVS Info No. 4..

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Mechanical tests

Sample description	On steel plate 70-90 µm layer thickness 10 minutes 180°C object temperature product PP1011EW2400		
Cross-cut-test	Gt 0		DIN EN ISO 2409
Cupping test	>3 mm		DIN EN ISO 1520
Impact-test	>60 kg cm (front)		DIN EN ISO 6272-1

Climatic tests

Sample description	On zinc-phosphated steel plate product PP1011EW2400		
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.
EFD info	Further technical information can be found in the EFD Info. No. 502
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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