



PR5011A

FREIOTHERM-Powder Coating

Product description

Product technology	energy-efficient powder coating for exterior use
Application area	e.g. in the functional furniture and storage technology sector
Surface	micro structure
Gloss value	mat
Gas furnace stability	very good
Surface hardness	good
Mechanical resistance	good

General product properties

Binder-Base	polyester resin
Colour	All common colour shades
Gloss visually	mat
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

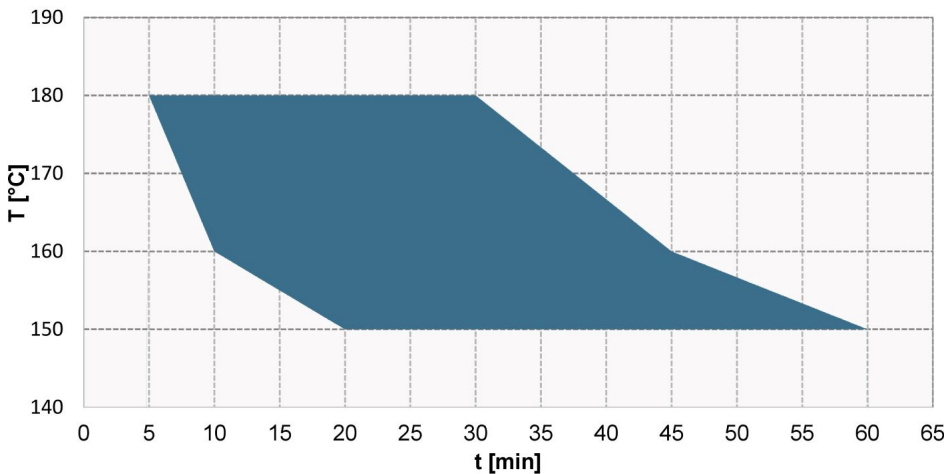
Pretreatment	The substrate must be free of adhesion-impairing substances such as oil, grease, rust, scale, mill scale, wax and release agent residues. We recommend the use of suitable mechanical pre-treatment processes (e.g. blasting, grinding) or chemical pre-treatment processes (e.g. phosphating) according to the requirements.
Recommended coating thickness	Uniform surface structure across a range of 80 to 120 µm
Material usage	approx. 0,12 kg/m ² , layer thickness 80 µm theoretical
Processing	Corona, Tribo



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Curing

Recommended object temperature 10 min/160 °C.



Objekt Temperatur in °C	150	160	180
Object Temperature in °C			
Haltezeit Minimum in Minuten	20	10	5
Holding time minimum in minutes			
Haltezeit Maximum in Minuten	60	45	30
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 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 EFD Info No. 4..



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Mechanical tests

Sample description	On steel plate 70-90 µm layer thickness 10 minutes 160°C object temperature product PR5011ARA915		
Cross-cut-test	Gt 0		DIN EN ISO 2409
Cupping test	>6 mm		DIN EN ISO 1520
Impact-test	>80 kg cm (front)		DIN EN ISO 6272-1

Climatic tests

Sample description	On iron-phosphated steel plate product PR5011ARA915		
Condensate constant climate	Load duration	500 h	DIN EN ISO 6270-2 (CH)
	Detachment Cut	<1 mm	DIN EN ISO 4628-8
Neutral salt spray test	Load duration	240 h	DIN EN ISO 9227 (NSS)
	Detachment Cut	<1 mm	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.
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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	<p>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.</p> <p>The information provided here contains reference values and does not constitute a specification.</p>