PF1003A
FREIOTHERM-Powder Coating Facade

Product description

Product technology	Powder coating for decorative use on exteriors
Application area	e.g. in the building facade sector
Surface	smooth
Gloss value	satin glossy
Running properties	good
Gas furnace stability	very good
Approvals	GSB Florida 1 141 c Qualicoat P-1108

General product properties

Binder-Base	polyester resin		
Colour	All common colour shades		
Gloss value	satin glossy	65-75 GU, Angle 60°	DIN EN ISO 2813
Density	1,2-1,7 g/cm³ depending on the shade		theoretical
Resistance to storage	approx. 24 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, chromating) according to the requirements. For this we refer to the guidelines of Qualicoat, GSB and Qualisteelcoat.	
Recommended coating thickness	70-90 µm	
Material usage	approx. 0,1 kg/m², layer thickness 70 µm	theoretical
Processing	Corona, Tribo	

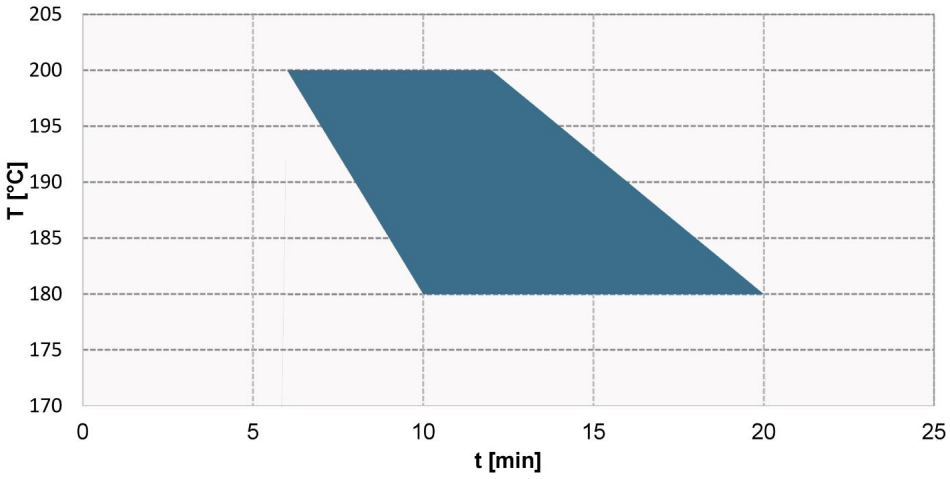
Our technical data sheets are to provide you with advice based on our latest state of knowledge.
This guidance does not release you from your own obligation to test our products for their suitability for your intended purposes and applications.
The sale of our products is in accordance with our terms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

FreiLacke | Emil Frei GmbH & Co. KG

Am Bahnhof 6
78199 Bräunlingen-Döggingen | Deutschland
+49 77071510
www.freilacke.de | info@freilacke.de

PF1003A
FREIOTHERM-Powder Coating Facade

Curing	Recommended object temperature 10 min/180 °C. Baking window tested in colour shade RAL 9010.



Objekt Temperatur in °C Object Temperature in °C	180	190	200
Haltezeit Minimum in Minuten Holding time minimum in minutes	10	8	6
Haltezeit Maximum in Minuten Holding time maximum in minutes	20	16	12

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..

Mechanical tests

Sample description	On aluminium-plated Q-panel AQT, 60-80 µm layer thickness, 10 minutes 180°C object temperature, product PF1003ARG910.	
Cross-cut-test	Gt 0	DIN EN ISO 2409
Cupping test	>5 mm	DIN EN ISO 1520

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.

DIN EN ISO 9001 | IATF 16949 | EMAS

FreiLacke | Emil Frei GmbH & Co. KG

Am Bahnhof 6
78199 Bräunlingen-Döggingen | Deutschland
+49 77071510
www.freilacke.de | info@freilacke.de

PF1003A
FREIOTHERM-Powder Coating Facade

Mandrel bending test cylindrical	<=5 mm		DIN EN ISO 1519
Impact resistance test	>29 inch/lb (reverse)		ASTM D2794

Climatic tests

Sample description	On chromated aluminium plate product PF1003ARG910		
Condensate constant climate	Load duration Detachment Cut	1000 h <1 mm	DIN EN ISO 6270-2 (CH) DIN EN ISO 4628-8
SO2 industry atmosphere	Load duration Bubble degree Surface Detachment Cut Change in colour and visual effect	30 cycles with 0.2 l 0(S0) <=1 mm 50 % dL*	DIN EN ISO 3231 DIN EN ISO 4628-2 DIN EN ISO 4628-8
Neutral salt spray test	Load duration Detachment Cut	1000 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 here contains reference values and does not constitute a specification.

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.

FreiLacke | Emil Frei GmbH & Co. KG

Am Bahnhof 6
78199 Bräunlingen-Döggingen | Deutschland
+49 77071510
www.freilacke.de | info@freilacke.de