



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		



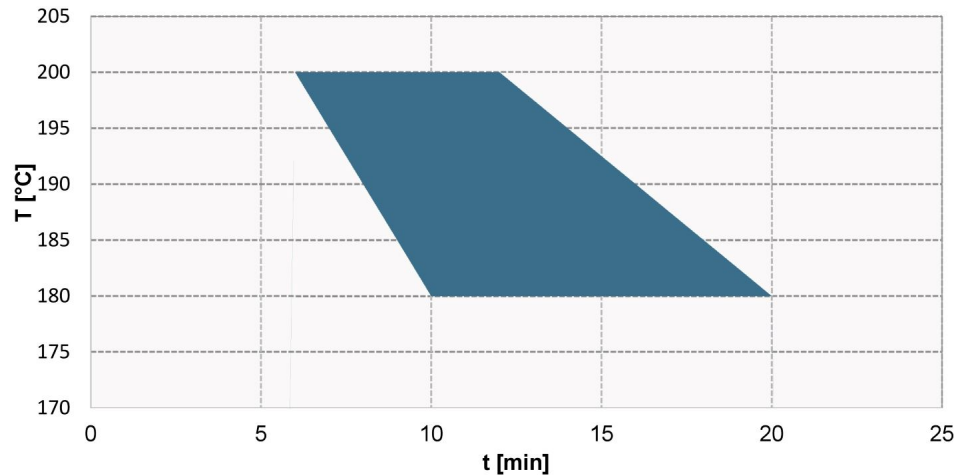
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Curing

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



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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 1000 h
Detachment Cut <1 mm

DIN EN ISO 6270-2 (CH)
DIN EN ISO 4628-8

SO2 industry atmosphere

Load duration 30 cycles with 0.2 l
Bubble degree Surface 0(S0)
Detachment Cut <=1 mm
Change in colour and visual effect 50 % dL*

DIN EN ISO 3231
DIN EN ISO 4628-2
DIN EN ISO 4628-8

Neutral salt spray test

Load duration 1000 h
Detachment Cut <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 and 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.