# PF2011B
## FREIOTHERM-Powder Coating Facade

### Product description

| | |
|---|---|
| **Product technology** | Super durable powder coating for decorative use on exteriors |
| **Application area** | e.g. in the building facade sector |
| **Surface** | micro structure |
| **Gloss value** | mat |
| **Gas furnace stability** | very good |
| **Approvals** | GSB Florida 3 141 e |

### General product properties

| | | | |
|---|---|---|---|
| **Binder-Base** | polyester resin | | |
| **Colour** | All common colour shades | | |
| **Gloss value** | mat | 5-15 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.<br><br>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

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| **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** | Uniform surface structure across a range of 60 to 100 µm | |
| **Material usage** | approx. 0,12 kg/m², layer thickness 80 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.
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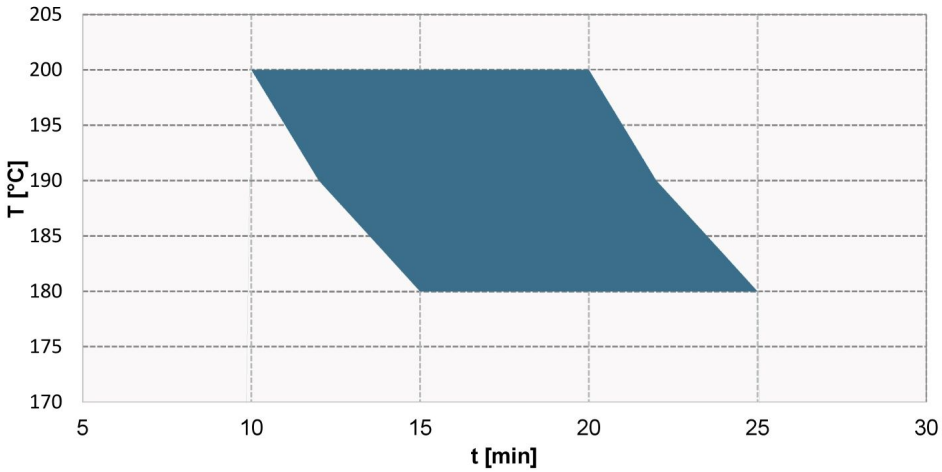


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| **Curing** | Recommended object temperature 15 min/180 °C.<br>Baking window tested in colour shade RAL 9010. |




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

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| **Note on curing** | Coloured area = stoving conditions with good end properties<br><br>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

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| **Touch-up coating** | on request. For details see EFD Info No. 4.. |

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### Mechanical tests

| | | |
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| **Sample description** | On aluminium-plated Q-panel AQT,<br>60-80 µm layer thickness,<br>15 minutes 180°C object temperature,<br>product PF2011BRA910. | |
| **Cross-cut-test** | Gt 0 | DIN EN ISO 2409 |
| **Cupping test** | >5 mm | DIN EN ISO 1520 |
| **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<br>product PF2011BRA910 | | |
| **Condensate constant climate** | Load duration<br>Detachment Cut | 1000 h<br><1 mm | DIN EN ISO 6270-2 (CH)<br>DIN EN ISO 4628-8 |
| **SO2 industry atmosphere** | Load duration<br>Bubble degree Surface<br>Detachment Cut | 30 cycles with 0.2 l<br>0(S0)<br><=1 mm | DIN EN ISO 3231<br>DIN EN ISO 4628-2<br>DIN EN ISO 4628-8 |
| **Neutral salt spray test** | Load duration<br>Detachment Cut | 1000 h<br><1 mm | DIN EN ISO 9227 (NSS)<br>DIN EN ISO 4628-8 |

### Chemical resistance

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| **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

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| **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.<br><br>The information provided here contains reference values and does not constitute a specification. |

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