



# FREIOTHERM-Powder Coating

## PK1033A

<b>Characteristics</b>	<ul style="list-style-type: none"> <li>■ Powder coating for restricted use on industrial exteriors</li> <li>■ Application, e.g. in the mechanical engineering and plant construction sector</li> <li>■ satin glossy, coarse structure</li> <li>■ Good corrosion protection</li> <li>■ Good mechanical resistance and surface hardness</li> <li>■ Uniform surface structure across a range of 70 to 120 µm</li> </ul>												
<b>System Coating</b>	<ul style="list-style-type: none"> <li>■ System Liquid Coating</li> </ul> <p>For various applications, there are coatings available, whose optical appearance regarding colour, gloss degree and surface is in optimum balance.</p>												
<b>Technical / Physical Data</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">■ Binder-Base</td> <td>polyester resin</td> </tr> <tr> <td>■ Colour</td> <td>all common colour shades</td> </tr> <tr> <td>■ Gloss value <small>visual</small></td> <td>satin glossy</td> </tr> <tr> <td>■ Test layer thickness</td> <td>90 µm by colour RAL 9010</td> </tr> <tr> <td>■ Density <small>calculated</small></td> <td>1,2-1,7 g/cm<sup>3</sup> colour-dependent</td> </tr> <tr> <td>■ Material usage</td> <td>0,13 kg/m<sup>2</sup> with 90 µm mean test layer thickness</td> </tr> </table>	■ Binder-Base	polyester resin	■ Colour	all common colour shades	■ Gloss value <small>visual</small>	satin glossy	■ Test layer thickness	90 µm by colour RAL 9010	■ Density <small>calculated</small>	1,2-1,7 g/cm <sup>3</sup> colour-dependent	■ Material usage	0,13 kg/m <sup>2</sup> with 90 µm mean test layer thickness
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<b>Resistance Test</b>	<ul style="list-style-type: none"> <li>■ on zinc phosphatized steel plate</li> </ul> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">■ Condensate constant climate <small>DIN EN ISO 6270-2 (CH)</small></td> <td>1000 hours Water ingress Wb &lt; 1 mm DIN EN ISO 4628-8</td> </tr> <tr> <td>■ Salt spray test (NSS) <small>DIN EN ISO 9227</small></td> <td>500 hours Water ingress Wb &lt; 1 mm DIN EN ISO 4628-8</td> </tr> <tr> <td>■ SO<sub>2</sub>-industry atmosphere <small>DIN EN ISO 3231</small></td> <td>10 cycles at 0,2 l SO<sub>2</sub> no change</td> </tr> <tr> <td>■ Chemical resistance</td> <td>Needs to be checked. The temperature and concentration of chemicals have a major influence on the test outcome.</td> </tr> </table>	■ Condensate constant climate <small>DIN EN ISO 6270-2 (CH)</small>	1000 hours Water ingress Wb < 1 mm DIN EN ISO 4628-8	■ Salt spray test (NSS) <small>DIN EN ISO 9227</small>	500 hours Water ingress Wb < 1 mm DIN EN ISO 4628-8	■ SO <sub>2</sub> -industry atmosphere <small>DIN EN ISO 3231</small>	10 cycles at 0,2 l SO <sub>2</sub> no change	■ Chemical resistance	Needs to be checked. The temperature and concentration of chemicals have a major influence on the test outcome.				
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<b>Processing and application</b> Dependent on plant and buildings	<ul style="list-style-type: none"> <li>■ <b>Processing / Loading</b> Corona, Tribo</li> <li>■ <b>Pretreatment</b> The substrate must be free of adhesion-impairing substances such as oil, grease, rust, scale, rolling skin, wax and separating agent residue. If requirements are more demanding than this, we recommend appropriate levels of</li> </ul>												

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 and delivery.



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	<p>phosphatizing or chromating.</p> <ul style="list-style-type: none"> <li>■ <b>Touch-up coating:</b> on enquiry</li> <li>■ <b>Health &amp; Safety at Work guidelines</b>                      The standard personal safety precautions must be observed when handling painting materials. Detailed information about dangerous goods, safety data and recommendations concerning Health &amp; Safety at Work and environmental protection can be found in the corresponding safety data sheet.</li> </ul>
<b>Curing</b>	<ul style="list-style-type: none"> <li>■ <b>Object temperature</b>                      Recommended baking temperature 10 min./180 °C                       Baking window tested in colour shade RAL 9010                      green cross-hatching = baking conditions with good final properties</li> </ul> <div style="text-align: center;"> <p>The graph plots temperature T in degrees Celsius on the y-axis (ranging from 130 to 220) against time t in minutes on the x-axis (ranging from 0 to 60). A hatched area represents the recommended baking window. It starts at 200°C at 0 minutes, drops to 180°C at 10 minutes, then to 170°C at 20 minutes, and remains constant at 170°C until 60 minutes.</p> </div>
<b>Resistance to storage</b>	<ul style="list-style-type: none"> <li>■ 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.</li> </ul>
<b>Specific comments</b>	<ul style="list-style-type: none"> <li>■ <b>Protective screening:</b> 160 µm</li> <li>■ <b>Compatibility with other powder coatings:</b> Needs to be checked</li> <li>■ <b>Test conditions</b>                      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.</li> </ul>