



# FREIOTHERM-Powder Coating

## PP5001M

<b>Characteristics</b>	<ul style="list-style-type: none"> <li>■ Powder coating for decorative use on exteriors</li> <li>■ Application, e.g. in the mechanical engineering and plant construction sector</li> <li>■ mat, smooth</li> <li>■ Metallic effect, bonded</li> <li>■ Good mechanical resistance and surface hardness</li> <li>■ Good light and weather resistance</li> <li>■ Smooth to apply</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"> <tr> <td>■ Binder-Base</td> <td>polyester resin</td> </tr> <tr> <td>■ Colour</td> <td>all common colour shades</td> </tr> <tr> <td>■ Gloss value visual</td> <td>mat</td> </tr> <tr> <td>■ Test layer thickness</td> <td>80 µm by colour RAL 9006</td> </tr> <tr> <td>■ Density calculated</td> <td>1,2-1,7 g/cm³ colour-dependent</td> </tr> <tr> <td>■ Material usage</td> <td>0,12 kg/m² with 80 µm mean test layer thickness</td> </tr> </table>	■ Binder-Base	polyester resin	■ Colour	all common colour shades	■ Gloss value visual	mat	■ Test layer thickness	80 µm by colour RAL 9006	■ Density calculated	1,2-1,7 g/cm³ colour-dependent	■ Material usage	0,12 kg/m² with 80 µm mean test layer thickness
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<b>Mechanical Test</b> on steel panel ST 1405	<table border="1"> <tr> <td>■ Cross-cut-test DIN EN ISO 2409</td> <td>Gt 0</td> </tr> <tr> <td>■ Erichsen index DIN EN ISO 1520</td> <td>&gt;3 mm</td> </tr> <tr> <td>■ Impact-Test DIN EN ISO 6272-1</td> <td>60 kg cm (front)</td> </tr> </table>	■ Cross-cut-test DIN EN ISO 2409	Gt 0	■ Erichsen index DIN EN ISO 1520	>3 mm	■ Impact-Test DIN EN ISO 6272-1	60 kg cm (front)						
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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"> <tr> <td>■ Condensate constant climate DIN EN ISO 6270-2 (CH)</td> <td>500 hours Water ingress Wb &lt; 1 mm DIN EN ISO 4628-8</td> </tr> <tr> <td>■ Salt spray test (NSS) DIN EN ISO 9227</td> <td>240 hours Water ingress Wb &lt; 1 mm DIN EN ISO 4628-8</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 DIN EN ISO 6270-2 (CH)	500 hours Water ingress Wb < 1 mm DIN EN ISO 4628-8	■ Salt spray test (NSS) DIN EN ISO 9227	240 hours Water ingress Wb < 1 mm DIN EN ISO 4628-8	■ 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</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 phosphatizing or chromatizing.</li> <li>■ <b>Touch-up coating:</b> on enquiry</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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	<ul style="list-style-type: none"> <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>										
<p><b>Curing</b></p>	<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 9006 green cross-hatching = baking conditions with good final properties</li> </ul> <table border="1"> <caption>Curing Temperature Profile</caption> <thead> <tr> <th>t [min]</th> <th>T [°C]</th> </tr> </thead> <tbody> <tr><td>0</td><td>200</td></tr> <tr><td>10</td><td>180</td></tr> <tr><td>20</td><td>170</td></tr> <tr><td>60</td><td>170</td></tr> </tbody> </table>	t [min]	T [°C]	0	200	10	180	20	170	60	170
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<p><b>Resistance to storage</b></p>	<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>										
<p><b>Specific comments</b></p>	<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>EFD-Info</b> Refer to the EFD information for further technical information. No. 502</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>										