

**PERFORMANCE COATINGS**
**Powder Properties**

|                                |   |  |
|--------------------------------|---|--|
| <b>Chemical composition:</b>   | Architectural grade TGIC free polyester   |  |
| <b>Health and Safety:</b>      | Refer to AVACE TGIC free Polyester powder coating MSDS  |  |
| <b>Specification:</b>          | Qualicoat Class 1   |  |
|                                | Complies with   | BS EN 12206<br>BS 6496 & BS6497<br>BS476 Part 6 Fire propagation class 0<br>BS476 Part 7 Spread of flame class 1 |
| <b>Colours and finishes:</b>   | Stock Powders are available in a range of RAL & BS colours including metallics.<br><b>Pantone, NCS, Designer RAL, Munsell</b> colours 20kg make to order in 4 days.   |  |
| <b>Gloss level:</b>            | Range 70-79% (60 degree head gloss meter)   |  |
| <b>Storage:</b>                | The product has a shelf life of 12 months if stored in its original packing in a fresh and dry environment at a temperature below 30°C  |  |
| <b>Cure Conditions:</b>        | Standard conditions are the following (actual temperature of the substrate):<br>15 minutes curing at 180°C    12 minutes curing at 190°C    10 minutes curing at 200°C  |  |
| <b>Application method:</b>     | Powder can be applied with corona electrostatic guns or tribo electric guns.  |  |
| <b>Specific weight:</b>        | 1.3-1.6 Kg/dm <sup>3</sup> (depending on type and colour)   |  |
| <b>Particle size:</b>          | Suitable for electrostatic applications   |  |
| <b>Optimum film thickness:</b> | Smooth: 60 to 70µm. The thickness of the coating film of certain strong colours may require to be higher in order to guarantee full opacity.  |  |
| <b>Product coverage:</b>       | Theoretical Coverage sqm/kg = 1000/ (average dft in µm x Specific wt in kg/ dm <sup>3</sup> )   |  |
| <b>Pre-treatment:</b>          | To ensure maximum adhesion the substrate must be thoroughly clean, free from grease, oil, rust, mill scale or any other contaminant. Cleaning maybe carried out either by shot blasting, solvent or chemical degreasing. For applications where high corrosion or chemical resistance is required the substrate should be chemically treated prior to powder coating: |  |
|                                | <b>Ferrous substrates:</b>  | Zinc phosphate   |
|                                | <b>Zinc Coated steel:</b>   | Zinc phosphate or Chromate conversion  |
|                                | <b>Aluminium:</b>   | Chromate conversion  |

**Mechanical and Chemical Properties**

|                                |   |                      |
|--------------------------------|---|----------------------|
| <b>Test Thickness:</b>         | 65 ± 10µm   | UNI EN ISO 2360:2004 |
| <b>Adhesion:</b>               | GTO (equivalent to 5B according to ASTM D3359)                            | UNI EN ISO 2409:1996 |
| <b>Pencil hardness:</b>        | H-2H  | ASTM D3363-00        |
| <b>Impact Test:</b>            | ≥2.5Nm  | ASTM D2794-93        |
| <b>Bending:</b>                | 5mm   | UNI EN ISO 6860:1996 |
| <b>Erichsen:</b>               | ≥5 mm (no detachments, no cracks)   | EN ISO 1520:1995     |
| <b>Hardness Buchholz:</b>      | ≥80   | EN ISO 2815:1998     |
| <b>Salt spray resistance:</b>  | 1000hrs (≤ 3mm )  | ASTM B117-97         |
| <b>Acetic acid salt spray:</b> | 1000hrs (≤ 4mm )  | ISO 9227:1990        |
| <b>Humidity resistance:</b>    | 1000hrs   | DIN 50017:1982       |
| <b>Q-Uva (340 nm):</b>         | 200hrs (loss of gloss<50%)  | ASTM G154-00         |
| <b>Kesternich corrosion:</b>   | > 24 cycles (≤1mm)  | EN ISO 3231:1997     |
| <b>Chemical Resistance:</b>    | Good resistance to diluted acids, alkali and oils at normal temperatures. |                      |

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