

HMG Powder Coatings Limited

Dill Road, Castlereagh Industrial Estate, Belfast, BT6 9HU Tel. +44 (028) 9079 4930 Fax. +44 (028) 9040 1187 www.hmgpowdercoatings.co.uk sales@hmgpowdercoatings.co.uk

Ultradurable Architectural Polyester

| Product Description | Designed for both exterior and internal use, this range of powder coatings offers both excellent outdoor durability and decorative aspect. The product is particularly suitable in areas where a high UV (sunlight) resistance is required, including fences, buildings facia and window frames. The range is designed to meet the requirements of: Qualicoat Class 2 GSB Master | | | |
|--------------------------|---|---|--|--|
| Powder Properties | Chemistry | Thermosetting carboxylated polyester cured with a multifunctional curing agent. | | |
| | Application | Corona electrostatic spray. The system can be supplied for Tribo application as required. | | |
| | Coating Thickness (DFT) | Depending on covering power and shade, general recommendation is 60-100 microns (μm), with a minimum thickness of 60 μm . | | |
| | Gloss (ISO 2813) | Gloss 85 ± 10 Semi-Gloss 60 ± 7 Matt 30 ± 5 | | |
| | Specific Gravity | 1.40 – 1.70 g/cm ³ depending on colour. | | |
| | Coverage | From 10-14 m ² /kg at 60 microns film thickness. | | |
| | Storage & Shelf Life | When stored in a cool (<20°C), dry environment: 12 months. | | |
| | Curing Schedule | See box label for curing conditions. Typical object temperature conditions are: 10 minutes at 180 Celsius – Gloss & Semi-Gloss 10 minutes at 200 Celsius – Matt | | |
| Pretreatment | To ensure maximum adhesion the substrate must be thoroughly clean, free from grease, oil, rust, mill scale or any other contaminant. Cleaning may be 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, typically: | | | |
| | Ferrous substrates Zinc coated steel Aluminium | iron or zinc phosphate zinc phosphate or chromate conversion chromate conversion | | |
| Mechanical Tests | Unless otherwise specified, all tests were carried out under laboratory conditions on 0.8mm aluminium panels prepared to the specifications described in the Qualicoat Standard. A powder coating DFT of 60-70 microns was used. | | | |
| | Hardness | ISO 2815 Buchholtz Indentation | >80 | |
| | Flexibility | ISO 1519 Cylindrical Mandrel | Pass >5mm (no delamination) | |
| | Adhesion | ISO 2409 2mm Crosshatch | Pass Gt0 | |
| | Cupping | ISO 1520 Erichsen | Pass >5mm (no delamination) | |
| | Impact | BS 3900: Part E7 | >25kg cm (N) (no delamination) | |
| Corrosion and Durability | Sulphur Dioxide | Kesternich Test ISO 3231 | After 24 cycles, infiltration <1mm from scratch | |
| | Salt Fog | Acetic Acid ISO 9227 | After 1000 hours, per 10cm scratch: Total Corrosion <16mm ² Maximum Length <4mm | |
| | Mortar Resistance | ASTM C207 | Easy to remove. No staining | |
| | Boiling Water | 2 hours boiling water | No defects or detachments | |
| | | | | |

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| | Humidity | BS3900: Part F2 | Pass. 1000 hours without any effect. | |
|---------------------|--|--|---|--|
| Weathering | Natural Weathering | Florida Sun Test ISO 2810 | After 12 months exposure, residual gloss > 90% | |
| | | | After 36 months exposure, residual gloss > 50% | |
| | Accelerated Weathering | QUV-B (313) ISO 11507; 0,75 W/m²/nm | After 600 hours, residual gloss > 50% | |
| Chemical Resistance | The range shows excellent resistance to water, brine, hydrochloric acid, dilute sulphuric, acetic and phosphoric acids, dilute alkalis, peroxides and bleach, alcohols and urea. | | | |
| Fire Resistance | Construction | | | |
| | The range has been tested to the requirements of BS 476 parts 6 & 7 and has a Class 0 surface as defined in various national building regulations. | | | |
| | The range has been tested to the requirements of EN 13823 and ISO 1716 and is classified as A2 s1 d0 according to EN 13501-1 | | | |
| | Rail | | | |
| | Additional to the above, the range has been tested to EN 45545-2+A1 Annex C and meets the requirements of London Underground S1085 'Fire Safety Performance of Materials'. | | | |
| Colour Availability | All colours from BS 5252, BS 4800, BS 381C, RAL Classic, RAL Design, Pantone and NCS ranges. Any submitted colour standard can be manufactured to customer's requirements | | | |
| RoHS/RoHS2/RoHS3 | This product range conforms to the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations Directives. Refer to our full statement on the hmgpowdercoatings.co.uk website. | | | |
| Health & Safety | This product is intended for use only by professional applicators in industrial environments. Consult the relevant health and safety data sheet indicated in the box label before use. | | | |



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