

## **HMG Powder Coatings Limited**

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## **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 ( $\mu m$ ), with a minimum thickness of 60 $\mu m$ .		
	Gloss (ISO 2813)	Gloss         85 ± 10           Semi-Gloss         60 ± 7           Matt         30 ± 5		
	Specific Gravity	1.40 – 1.70 g/cm <sup>3</sup> depending on colour.		
	Coverage	From 10-14 m <sup>2</sup> /kg at 60 microns film thickness.		
	Storage & Shelf Life	When stored in a cool (<20°C), dry environment: 12 months.		
	Curing Schedule	<ul> <li>See box label for curing conditions. Typical object temperature conditions are:</li> <li>10 minutes at 180 Celsius – Gloss &amp; Semi-Gloss</li> <li>10 minutes at 200 Celsius – Matt</li> </ul>		
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 <sup>2</sup> 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 <b>Class 0</b> 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 <b>A2 s1 d0</b> 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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