HMG Powder Coatings Limited

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Piano Black GL 90% Polyester

837-0R905P-2189

Product Description	An exterior durable system offering excellent corrosion resistance, gloss retention and mechanical properties. The extremely high gloss level and definition of image gives this black powder coating a mirror-like surface finish. Additionally, its ability to retain its mirror-like finish even at high film builds make it ideal for intricate alloy wheels, either as a finish in its own right, or as a base coat. When used as a base coat for liquid paint chromes, it will lend a deep flop to the chrome finish.		
Key Benefits	Piano Black finish High Build without losing DOI No lacquer required when used as a top coat finish Use as a base coat for liquid paint chromes Zero hazard labelling Standard curing conditions		
Powder Properties	Chemistry	Thermosetting carboxylated polyester cured with a multifunctional curing agent.	
	Application	Corona electrostatic and tribostatic spray.	
	Coating Thickness (DFT)	General recommendation is 60-100 microns (µm), with a minimum thickness of 60 µm.	
	Gloss (ISO 2813)	Gloss (60°) >95	
		Gloss (20°) >85	
	Specific Gravity	1.20 g/cm^3	
	Theoretical Coverage	From 13 m^2/kg at 60 microns film thickness.	
	Storage & Shelf Life	When stored in a cool (<20^{o}C), dry environment: 12 months.	
	Curing Schedule	10 minutes @ 180°C (substrate temperature) 7 minutes @ 190°C (substrate temperature)	
		We recommend that where the coatings may be subjected to temperatures above 210°C, a trial is first carried out to ensure there is no unwanted colour variation. Direct-fired gas ovens may also cause colour to change from the expected result.	
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	iron or zinc phosphate	
	Zinc coated steel	zinc phosphate or chromate conversion	
	Aluminium	chromate conversion	
Mechanical Tests	Unless otherwise specified, all tests were carried out under laboratory conditions on 0.8mm degreased and zinc phosphated steel panels. A powder coating DFT of 60-70 microns was used.		
	Hardness	ISO 2815 Buchholtz Indentation	>80
	Flexibility	ISO 1519 Cylindrical Mandrel	Pass >5mm
	Adhesion	ISO 2409 2mm Crosshatch	Pass Gt0
	Cupping	ISO 1520 Erichsen	Pass >4mm
	Impact	BS 3900: Part E7	>20kg cm (N)

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Corrosion and Durability	Sulphur Dioxide	Kesternich Test ISO 3231	After 24 cycles, infiltration <1mm from scratch
	Neutral Salt Fog	ASTM B117 (500 hours)	Corrosion creep <2mm from scratch Adhesion – Gt0
	Mortar Resistance	ASTM C207	Easy to remove. No staining
	Boiling Water	2 hours boiling water	No defects or detachments
	Humidity	BS3900: Part F2	Pass. 1000 hours without any effect.
	Exterior Durability	After 12 months, minimal loss of gloss or colour change. No film breakdown or reduction in protective properties	
Chemical Resistance	This product shows excellent resistance to water, brine, hydrochloric acid, dilute sulphuric, acetic and phosphoric acids, dilute alkalis, peroxides and bleach, alcohols and urea.		
Colour Availability	A deep Jet Black, close match to RAL 9005 and BS 00 E 53.		
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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