HMG Powder Coatings Limited

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Epoxy Anti-Microbial

367 Series

Product Description	Designed where the user requires an antimicrobial coating coupled with a superior decorative finish, exhibiting excellent flow, toughness and chemical resistance. A powder coating incorporating a silver glass complex that antagonises the settlement of micro-organisms on the surface of the cured powder coating film. In addition, the coating offers good flow, toughness and chemical resistance. These coatings are typically used in such applications as lockers, cabinets, office furniture. Use of an antimicrobial coating does not replace normal cleaning regimes.		
Key Benefits	An antimicrobial surface Excellent corrosion resistance Excellent chemical resistance Excellent adhesion High surface hardness Non-toxic		
Powder Properties	Chemistry	A thermosetting epoxy resin system.	
	Application	Corona electrostatic spray. The system can be modified for Tribo application as required.	
	Coating Thickness	Depending on covering power and shade, general recommendation is 60-100 microns (µm), with a minimum thickness of 60 µm.	
	Gloss (ISO 2813)	A range from Dead Matt (<10%) to Gloss (>85%).	
	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^{o}C), dry environment: 12 months.	
	Curing Schedule	10 minutes at 180 Celsius (object temperature)	
Biocidal Data (from Hybrid Anti-Bac System)		Challenged with MRSA	Challenged with *E-Coli*
	% reduction vs control	99.98%	99.9999%
	% reduction vs initial inoculum	99.994%	99.996%
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 >5mm
	Impact	BS 3900: Part E7	>25kg cm (N)

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Corrosion and Durability	Salt Fog	ISO 7253 (250 hours)	Pass – Corrosion creep <2mm from scratch
	Mortar Resistance	ASTM C207	Easy to remove. No staining
	Boiling Water	2 hours boiling water	No defects or detachments
	Humidity	BS 3900 Part F2	More than 1000 hours without effect
	Chemical Resistance	Resistant to most acids, alkalis and oils.	
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		
Restriction of Hazardous Substances (RoHS/RoHS2)	This product range conforms to the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (RoHS and RoHS2) Directive. It does not contain any compounds of lead, mercury, cadmium or hexavalent chromium; nor does it contain polybrominated biphenyls (PBBs) or polybrominated diphenyl ether (PBDE).		
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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