HMG Powder Coatings Limited

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Clear Matt Antimicrobial

967-2S600P-4270

Product Description	Designed for both exterior and internal use, this powder coating offers excellent corrosion resistance and exhibits exceptional smoothness, clarity and excellent flexibility. The product has a high tolerance of high film thicknesses without affecting flow, and is thus very suitable for intricate pieces where an aesthetic finish is desired. An antimicrobial additive is present that antagonises the settlement of micro-organisms on the surface of the cured powder coating film. As the colour is very clear, this product can be used over any suitable coloured base, either the original metal surface colour or any colour from the polyester 827 series to achieve a very matt antimicrobial surface of the desired shade.		
Powder Properties	Chemistry	Thermosetting hydroxyl functional polyester cured with a blocked isocyanate curing agent.	
	Application	Corona electrostatic spray. The system can be modified for Tribo application as required.	
	Coating Thickness (DFT)	General recommendation is 80-100 microns (µm), with a minimum thickness of 70 µm.	
	Gloss (ISO 2813)	Matt <5 GU on a 60 degree head (the sheen was measured over a black substrate; as the product is clear, chrome or other metallic surfaces may give a higher gloss reading)	
	Specific Gravity	1.21 g/cm^3	
	Coverage	Up to 11.9 m^2/kg at 70 microns film thickness.	
	Storage & Shelf Life	When stored in a cool (<20^{o}C), dry environment: 12 months.	
	Curing Schedule	10 minutes at 200 Celsius (object temperature)	
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 >3mm
	Adhesion	ISO 2409 2mm Crosshatch	Pass Gt0
	Cupping	ISO 1520 Erichsen	Pass >6mm
	Impact	BS 3900: Part E7	>20kg cm (N)
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
	Exterior Durability	After 12 months, minimal loss of gloss or colour change. No film breakdown or reduction in protective properties	

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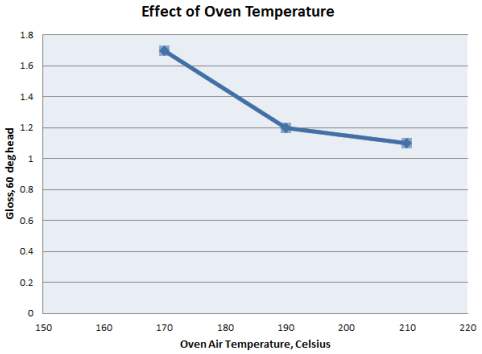
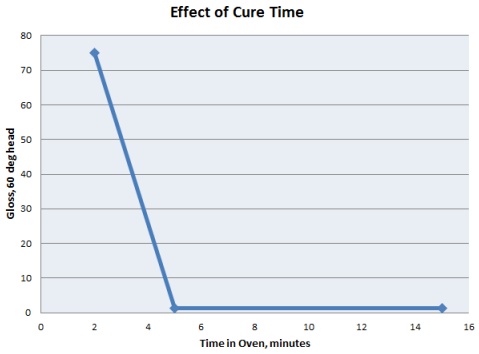
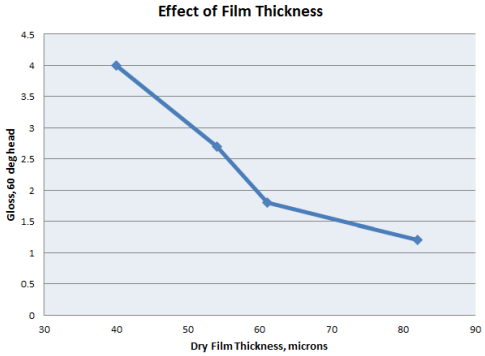
	Chemical Resistance Resistant to most acids, alkalis and oils.
Colour Availability	The system is matt clear.
Restriction of Hazardous Substances (RoHS/RoHS2)	This product conforms to the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations (RoHS and 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.
Application Notes	Owing to the low gloss range, even minor increases in measured gloss will be clearly apparent; therefore we recommend that the user take adequate precautions to ensure the temperature range and residence time in the oven be kept at a very tight tolerance. Lab studies have shown that the product's gloss will gradually increase as temperature is lowered. The time in the oven is crucial, with under-cure showing a large increase in gloss level when cure time drops below a critical level.





For the best, most consistent, results a minimum film thickness of 70 microns is required and a minimum of 80 microns recommended. In certain circumstances at film thicknesses of 40-60 microns, the product may appear to be slightly glossier (3-4 GU).



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