HMG Powder Coatings Limited

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Frost

887-2S600P-4728

Product Description	A dead matt powder coating that exhibits a soft velvet touch property. The product offers excellent colour transparency and is translucent. When used as a top coat over a base colour, the result is a frosted appearance similar to an anodised effect. The coating is designed for use as a decorative effect on components such as seasonal gifts, office furniture, bottles, wheels and any other component where a dead matt anodised finish is desirable.		
Powder Properties	Chemistry	A thermosetting binder system based on a carboxylated polyester resin and a multifunctional curing agent.	
	Application	Corona electrostatic spray. The system can be modified for Tribo application as required.	
	Coating Thickness (DFT)	General recommendation is 70-90 microns (µm), with a minimum thickness of 60 µm.	
	Gloss (ISO 2813)	Dead Matt 2-4 GU (over a black base)	
	Specific Gravity	1.20 g/cm^3	
	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: 6 months.	
	Curing Schedule	10 minutes at 200 Celsius (object temperature) Full cure, reaching peak temperature, is required to achieve the matt effect.	
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	>5mm
	Adhesion	ISO 2409 2mm Crosshatch	Gt0
	Cupping	ISO 1520 Erichsen	>2mm
	Impact	BS 3900: Part E7	>5kg cm (N)

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Corrosion and Durability	Neutral Salt Fog (over black base)	ASTM B117 (250 hours)	Pass – Corrosion creep <2mm from scratch
	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.	
	Exterior Durability	After 12 months, minimal loss of gloss or colour change. No film breakdown or reduction in protective properties	
Colour Availability	A frosted clear matt.		
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	The gloss level of the range is very low – 2-4 Gloss Units typically. Lab tests have shown that decreasing the residence time in the oven, or curing at a lower temperature can dramatically increase the gloss level. Higher gloss products will not exhibit the velvet feel.		

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