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Jet Black VHT Silicone Texture

890-1S095P-3421

Product Description	A jet black textured powder coating specially designed to withstand the high temperatures associated with flues, heat exchangers and exhaust mufflers.		
Powder Properties	Chemistry	Thermosetting powder coating based on an organosilicon binder.	
	Application	Corona electrostatic spray. The system can be modified for Tribo application as required.	
	Coating Thickness (DFT)	Best performance achieved with an average coating thickness of 60-80 µm. Maximum thickness 100 µm.	
	Gloss (ISO 2813)	Matt (Textured Finish)	
	Specific Gravity	1.95 g/cm^3	
	Coverage	From 10-15 m^2/kg at 60 microns film thickness.	
	Storage & Shelf Life	When stored in a cool (<25^{o}C), dry environment: 12 months.	
	Curing Schedule	See box label for curing conditions. Typical object temperature conditions are: • 15 minutes at 200 Celsius Full cure will only be achieved after pyrolysis, typically when the coating is in use. The curing schedule above will allow handling without loss of adhesion, etc.	
Pretreatment	To ensure maximum adhesion the substrate must be thoroughly clean, free from grease, oil, rust, mill scale or any other contaminant. Shot-blasting is recommended to clean the surface and provide a key for adhesion. Pre-treatment chemicals may break down at high temperatures and the supplier should be consulted before application.		
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 60-80 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)
	Resistance to Thermal Shock	Heat to 450C, plunge into cold water	After 3 cycles, no loss of adhesion, cracking, or blistering
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.
	Accelerated Weathering	UV-B 313 Test ISO 11507	After 300 hours, no cracking, minimal colour change or loss of gloss
	Natural Weathering	After 12 months, minimal loss of gloss or colour change. No film breakdown or reduction in protective properties	

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Heat Resistance

Test	Temperature (°C)	Time	Result	Method
Colour (Visual) – Continuous	470	8 hours	Acceptable	Muffle Furnace
Adhesion – Continuous	470	8 hours	Gt0	Muffle Furnace
Adhesion – Peak	550	1 hour	Gt0	Muffle Furnace

All tests were carried out on grit blasted mild steel with a blast profile (Rz) of 30-40µm. The coating was applied at an average film thickness of 80µm.

Some gloss reduction is expected upon heating above 400°C.

Application

The coating achieves best results when sprayed to a dry film thickness (DFT) not exceeding 100 microns: 60-80 microns is ideal. Best performance is achieved on grit or shot blasted steel with an Rz exceeding 30 µm. During curing and on the products first heating to the operation temperature some decomposition products will be released. These are oxides of carbon and nitrogen and water.

Restriction of Hazardous Substances (RoHS/RoHS3)

This product 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

Consult the relevant health and safety data sheet indicated in the box label before use.

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