



**Technical specifications for plasma sprayed
ThermoHold® Performance Metallic Black™ exhaust coating**

Bond coat	Nickel based alloy
Thickness of bond	Min 30µm Max 50µm
Ceramic material	Proprietary mix of zirconia based ceramics.
Ceramic thickness	200-250µm depending on customer requirements and substrate geometry
Total coating thickness	No more than 300µm unless specified
Coating mass	0.85-1.05 kg/m ²
Ave. coating density	5200 kg/m ³
Bond coat density	~7000 kg/m ³
Ceramic density	~4500 kg/m ³
Surface texture	Rough to the touch Approximately 30-40 Ra
Colour	Metallic Black
Emissivity	~0.85-0.9
Reflectivity	~10-15%
Thermal conductivity	~1.4w/m ² K
Electrical properties	Dielectric to circa 700°C - Ionic conductor at elevated temperatures – point discharge from bond
Surface hardness	11 on modified mhos scale – excluding top finish
Max. coating temp.	Tested to 900°C (exhaust gas temp.) – colour fast
Porosity of ceramic	8 – 12 %
Young's modulus	28 -46 GPa
Poisson's ratio	0.24