Technical specifications for plasma sprayed ThermoHold® Performance White™ exhaust coating

Substrate	Steel – including mild & stainless, cast iron and Inconel	Aluminium and alloys including high magnesium alloys	Titanium
Bond coat	Nickel based alloy	Aluminium	Titanium
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	0.8-1.0 kg/m^2	0.75-0.9 kg/m^2	0.8-0.95 kg/m^2
Ave. coating density	5200 kg/m^3	3900 kg/m^3	4300 kg/m^3
Bond coat density	~7000 kg/m^3	~2400 kg/m^3	~4100 kg/m^3
Ceramic density	~4500 kg/m^3		
Surface texture	Rough to the touch Approximately 30-40 Ra		
Colour	White to pale cream		
Emissivity	~0.2		
Reflectivity	~80%		
Thermal conductivity	~1.4w/m°K		
Electrical properties	Dielectric to circa 700°C - Ionic conductor at elevated temperatures – point discharge from bond		
Surface hardness	11 on modified mhos scale		
Max. coating temp.	1400°C (sintering will start ~1500°C)		
Porosity of ceramic	8 – 12 %		
Young's modulus	28 -46 GPa		
Poisson's ratio	0.24		