



Technical specifications for plasma sprayed ThermoHold® for Composites Performance Aluminium™

Substrate	Composite materials such as carbon fibre or glass re-enforced plastic Suitable high temperature plastics
Bond coat	Metallised or ceramic bond coat as determined by clients requirements
Thickness of bond	Min 20µm Max 50µm
Ceramic material	Proprietary mix of zirconia based ceramics.
Ceramic thickness	100-150µm depending on customer requirements and substrate geometry
Top layer	Aluminium
Top layer thickness	20 - 50µm
Total coating thickness	No more than 250µm unless specified
Coating mass	0.6 – 0.75 kg/m ²
Ave. coating density	~3800 - 4000 kg/m ³
Bond coat density	~2400 - 3200 kg/m ³
Ceramic density	~4500 kg/m ³
Surface texture	Rough to the touch Approximately 20 - 30 Ra
Colour	Aluminium
Emissivity	~0.05
Reflectivity	~95%
Thermal conductivity	~1.4w/m°K
Electrical properties	Electrically conductive
Surface hardness	2.9 on modified mhos scale
Max. coating temp.	500°C
Porosity of ceramic	8 – 12 %
Young's modulus	28 -46 GPa
Poisson's ratio	0.2

