



Technical specifications for plasma sprayed ThermoHold® Alumina

Substrate	Range of metals and 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 substrate material & client's requirements
Thickness of bond	Min 20µm Max 50µm
Ceramic material	Alumina.
Ceramic thickness	100-150µm depending on customer requirements and substrate geometry
Total coating thickness	No more than 200µm unless specified
Bond coat density	~2400 - 7000 kg/m ³ – depending upon bond coat specification
Ceramic density	~3500 kg/m ³
Surface texture	Rough to the touch Approximately 30-40 Ra
Colour	White
Emissivity	~0.2
Reflectivity	~80%
Thermal conductivity	~30w/m°K
Electrical properties	Dielectric constant: 6 – 8@ 1kHz. Dielectric strength: 90 – 180 kv/cm
Porosity of ceramic	8 – 12 %
Poisson's ratio	0.25 – 0.3