

ThermaSiC® 1545 Silicon Carbide

Agglomerated and Sintered Powder for Thermal Spraying with High Velocity Oxygen Fuel

Creates a dense wear-, corrosion- and temperature-resistant SiC coating

Powder Characteristics

Ceramic binder	Description	Shape
YAG	Agglomerated and sintered	Spheroidal
Binder content	Size distribution	Tap Density
~20vol%	-45 +15 µm	1,1-1,6 g/cm ³

Typical Spraying Parameters

Sample preparation	Spray rate	Coating thickness	
Grit blast surface, 4-6µm Ra rec.	5-15µm per pass	50-250µm recommended	
Starting indication JP 5000 (others available on request)			
<i>Spray distance</i>	<i>Fuel</i>	<i>Powder feed rate</i>	<i>Traversal</i>
8" / 200mm	Kerosene + Oxygen (25 SLPH + 900 NLPM)	20 g/m	1500mm/s, 4mm drop

Typical Coating Characteristics

Porosity	Microhardness	Tensile Strength
1-2%	500-700 HV	20-40 MPa
Friction Coefficient	Corrosion Resistance	Thermal Shock Resistance
0.15 @ 0.3µm Ra (Alumina pin-on-disc)	Excellent	800°C → RT in 1s

Packaging

By Agreement

Other

Coating properties are highly dependent on substrate and spraying conditions

