

Silicon Carbide sSiC

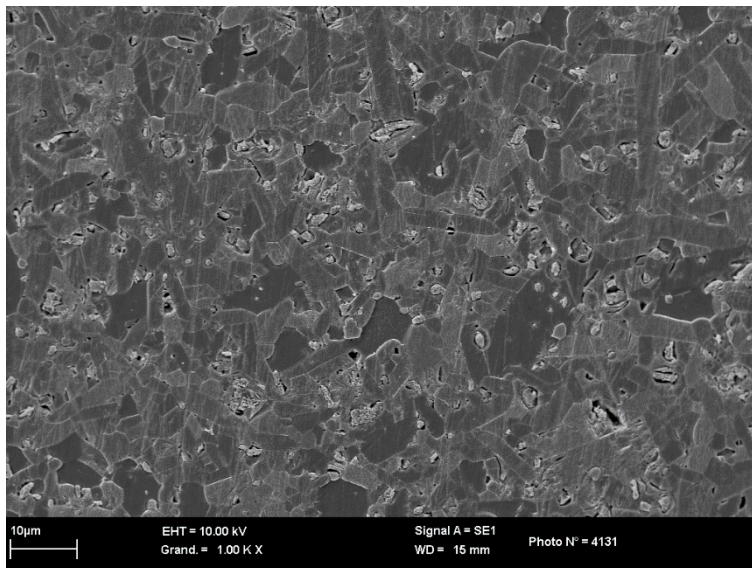
CHEMICAL COMPOSITION			
	SiC	95%wt	* by difference
	B	0.5%wt	
	O	<5%wt	
	Al	0.04	
	Ca	0.01	
	Fe ₂ O ₃	0.05	

PHYSICAL PROPERTIES		
	Mean grain size	-
	Sintered density	3.1 g/cm ³
	Bending strength at 20° C	400 MPa
	Hardness H _{v0.5}	2200 Hv

THERMAL PROPERTIES		
	Thermal conductivity at 20°C	100 W.m ⁻¹ .k ⁻¹

ELECTRICAL PROPERTIES		
	Dielectric constant at 25°C-1MHz	-
	tan δ	4.10 ⁻³ (1GHz)
	DC Volume resistivity at 25°C	5.10 ⁷ Ω.cm
	Dielectric strength at 3mm	0 kV/mm ⁻¹

MICROSTRUCTURE



KEY FEATURES	
	Light weight, good wear resistance, high hardness

TYPICAL APPLICATIONS	
	Rotor and ball valves components, nozzles, cutting blades, special pump plungers, turbine components, sealing elements, bearings elements, wear plates, heat exchangers.