

Ce-Y stabilised Zirconia 85%TZP-15%Al₂O₃

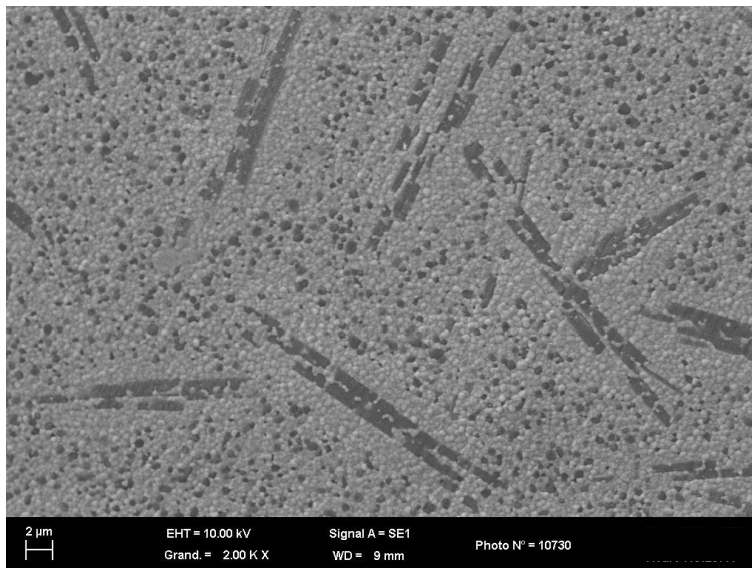
CHEMICAL COMPOSITION	ZrO ₂ + HfO ₂	79%wt	* by difference
	Al ₂ O ₃	15%wt	
	Y ₂ O ₃ + CeO ₂	6%wt	
	SiO ₂	<200 ppm	
	Na ₂ O	<200 ppm	
	Fe ₂ O ₃	<50 ppm	

PHYSICAL PROPERTIES	Mean grain size	0.5±0.1 µm
	Sintered density	5.7 g/cm ³
	Bending strength at 20° C	1000 MPa
	Hardness H _{v0.5}	1200 Hv

THERMAL PROPERTIES	Thermal conductivity at 20°C	-
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ELECTRICAL PROPERTIES	Dielectric constant at 25°C-1MHz	-
	tan δ	-
	DC Volume resistivity at 25°C	-
	Dielectric strength at 3mm	-

MICROSTRUCTURE



KEY FEATURES	High toughness and shock resistance
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TYPICAL APPLICATIONS	Hip joint implants, surgical instruments, thermal insulators in resectoscopy, pump components, wear resistant components, valve seals, bushings, cutting tool inserts, welding jigs and fixtures.
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