

APTZNA 75%TZP-25%Al₂O₃

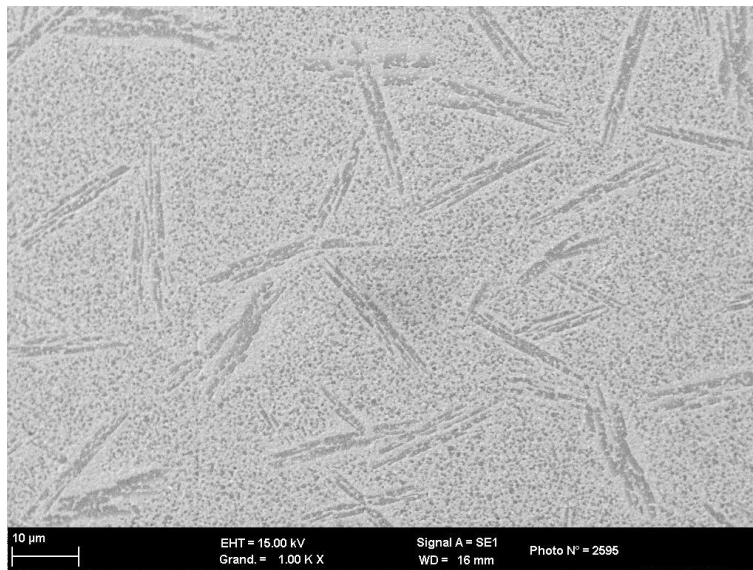
CHEMICAL COMPOSITION			
	ZrO ₂ + HfO ₂	64.5%wt	* by difference
	Al ₂ O ₃	25%wt	
	Y ₂ O ₃ + CeO ₂	10.5%wt	
	SiO ₂	<200 ppm	
	Na ₂ O	<200 ppm	
	Fe ₂ O ₃	<50 ppm	

PHYSICAL PROPERTIES		
	Mean grain size	0.5±0.1 μm
	Sintered density	5.4 g/cm ³
	Bending strength at 20° C	1000 MPa
	Hardness H _{v0.5}	1300 Hv

THERMAL PROPERTIES		
	Thermal conductivity at 20°C	-

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

MICROSTRUCTURE



KEY FEATURES	
	Good mechanical properties, no hydrothermal aging

TYPICAL APPLICATIONS	
	Hip joint implants, surgical instruments, thermal insulators in resectoscopy, pump components, wear resistant components, valve seals, bushings, cutting tool inserts.