

ZTA 90%Al₂O₃-10% 3Y-TZP

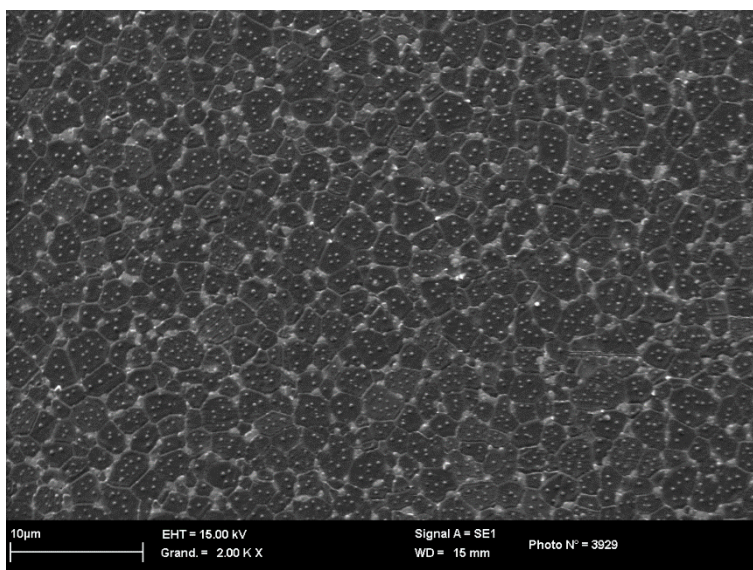
CHEMICAL COMPOSITION	Al ₂ O ₃	90%wt	* by difference
	3Y-TZP	10%wt	
	Na ₂ O	<0.1%wt	
	SiO ₂	<0.1%wt	
	Fe ₂ O ₃	<0.1%wt	
	CaO	<0.1%wt	

PHYSICAL PROPERTIES	Mean grain size	3±1 μm
	Sintered density	4.13 g/cm ³
	Bending strength at 20° C	600 MPa
	Hardness H _{v0.5}	1800 Hv

THERMAL PROPERTIES	Thermal conductivity at 20°C	20 W.m ⁻¹ .k ⁻¹
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ELECTRICAL PROPERTIES	Dielectric constant at 25°C-1MHz	10 (1MHz)
	tan δ	-
	DC Volume resistivity at 25°C	10 ¹⁴ Ω.cm
	Dielectric strength at 3mm	-

MICROSTRUCTURE



KEY FEATURES	Enhanced mechanical and thermal properties
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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.
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