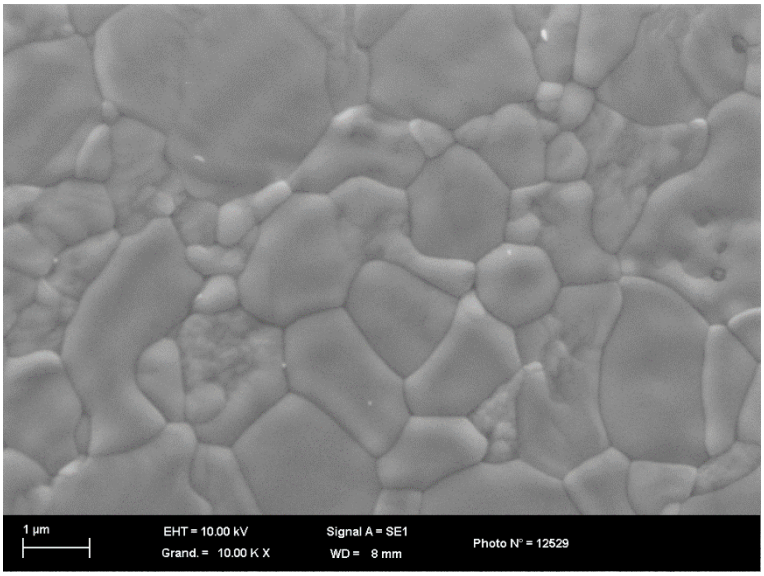
ceramaret Switzerland

Zirconia Ce-TZP

CHEMICAL COMPOSITION	$ZrO_2 + HfO_2$	83.75%wt	* by difference
	CeO_2	16%wt	
	Al_2O_3	0.25%wt	

PHYSICAL PROPERTIES	Mean grain size	1±0.5 µm
	Sintered density	6.2 g/cm^3
	Bending strength at 20° C	600 MPa
	Hardness $H_{v0.5}$	800 Hv
THERMAL PROPERTIES	Thermal conductivity at 20°C	3.5 W.m^{-1}.k^{-1}
ELECTRICAL PROPERTIES	Dielectric constant at 25°C-1MHz	30 (1MHz)
	tan δ	1.10^{-3} (1MHz)
	DC Volume resistivity at 25°C	1.10^{13} Ω.cm
	Dielectric strength at 3mm	25 kV/mm^{-1}

MICROSTRUCTURE



KEY FEATURES

No hydrothermal aging

TYPICAL APPLICATIONS

Instrumentation, sensors, flow control, insulators. Especially suited for applications were hydrothermal aging is critical.