

# ATZ 80%3Y-TZP-20%Al<sub>2</sub>O<sub>3</sub> (Hipped)

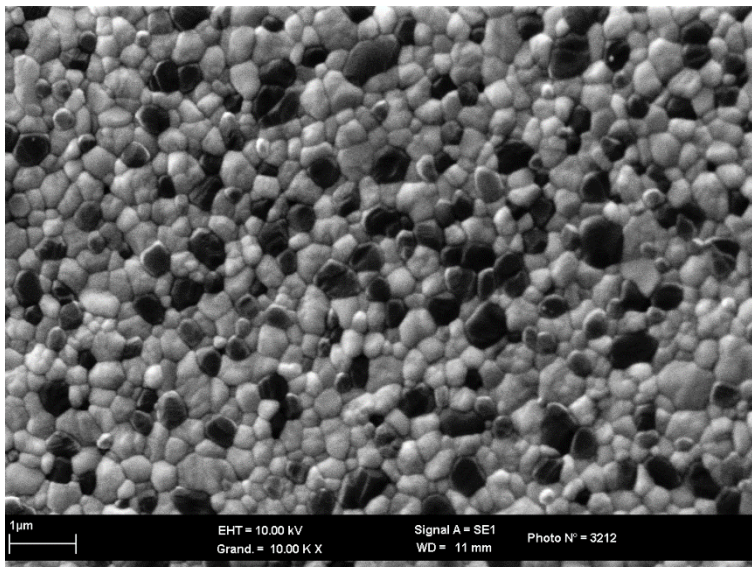
CHEMICAL COMPOSITION	3Y-TZP	80%wt	* by difference
	Al <sub>2</sub> O <sub>3</sub>	20%wt	
	SiO <sub>2</sub>	<0.02	
	Fe <sub>2</sub> O <sub>3</sub>	<0.01	

PHYSICAL PROPERTIES	Mean grain size	0.5±0.1 μm
	Sintered density	5.43 g/cm <sup>3</sup>
	Bending strength at 20° C	1600 MPa
	Hardness H <sub>v0.5</sub>	1400 Hv

THERMAL PROPERTIES	Thermal conductivity at 20°C	10 W.m <sup>-1</sup> .K <sup>-1</sup>
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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 mechanical strength and hardness
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TYPICAL APPLICATIONS	Dental implants, orthopaedic prosthetics, cutting tools, thread guides, bearings, nozzles, filling pumps, ball valves.
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