

Designation		TZP
Components		ZrO <sub>2</sub> /Y <sub>2</sub> O <sub>3</sub>
Purity	%	95/5
Density	g/cm <sup>3</sup>	6.05
Open porosity	%	0
Grain size (mli)	µm	0.4
Hardness Vickers	HV	1200
Hardness Mohs	-	8
Compressive strength	MPa	2000
Flexural strength	MPa	1000
Young's modulus	GPa	200
Fracture toughness K <sub>1c</sub>	MN/m <sup>3/2</sup>	8
Poisson ratio	-	0.31
Max. operating temperature	°C	1000
Thermal expansion (20-1000°C)	10 <sup>-6</sup> /K	10
Thermal conductivity	W/mK	2.5
Specific heat	J/kg K	500
Dielectric strength	kV/mm	-
Electrical resistivity (20°C/1000°C)	Ω cm	-
Dielectric constant (100MHz)	-	-
Dielectric loss factor	tan δ	-
Shaping procedures:		
· Isostatic pressing		X
· Die pressing		X
· Slip casting		
· HIP		X
Suggested applications		Bioceramics, Precision parts

All information and data correspond to the present state of our knowledge concerning properties and applications. It does not guarantee certain properties for products designed for specific applications utilizing material described herein. We guarantee, however, first rate quality as lined out in our terms of delivery.