



C-MAC INTERNATIONAL

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TTZ Tetragonally Toughened Zirconia (MgO-PSZ) Technical Data				
Mechanical		SI/Metric (Imperial)	Testing method	SI/Metric (Imperial)
Density		gm/cc	ASTM-C20	5.72
Crystal size	Average	MICRONS	THIN-SECTION	35
Water absorption		%	ASTM-373	0
Porosity		–	–	0
Color		–	–	IVORY
Flexural strength (MOR)	20° C	MPa	ASTM-F417	900
Modulus of Elasticity	20° C	GPa	ASTM-C848	200
Poisson's ratio	20° C	–	ASTM-C848	0.30
Compressive Strength	20° C	MPa	ASTM-C773	1970
Hardness		GPa (kg/mm ²)	KNOOP 1000 gm	11.8 (1200)
Thermal				
Thermal conductivity	20° C	W/m °K	ASTM-C408	2.8
Coefficient of thermal expansion	25-1000° C	1X 10 ⁻⁶ /°C	ASTM-C372	10
Electrical				
Dielectric strength	6.35mm	ac-kV/mm (ac V/mil)	ASTM-D116	9.4 (240)
Volume resistivity	25° C	ohm-cm	ASTM-D1829	>10 ¹¹
	500° C	ohm-cm	ASTM-D1829	2 x 10 ⁵

*The data offered here is for comparative purposes only, and is not to be construed as absolute engineering data. Actual data may vary due to product configuration. The data does not represent a warranty for which we assume legal responsibility.