

High Purity Zirconia

Typical Properties – 3 mole% yttria sintering aid

	(Units)	(Typical)
Density	(g/cc)	6.02
Color		white
Grain Size, average	(um)	< 1
Thermal Conductivity	(W/m-K)	2 - 3
Thermal Expansion	(10exp-6/C)	10
Thermal Down-shock	(C)	300
Volume Resistivity (RT)	(Ohm-cm)	>10E9
Dielectric Loss	(RT, 1Mhz)	
Dielectric Constant	(RT, 100Khz)	26
Compressive Strength	(MPa)	2000
Bending Strength	(MPa)	900
Young's Modulus	(GPa)	200
Hardness	(GPa)	13
Fracture Toughness	(MPa-m ^{1/2})	13
As-Fired Surface Finish	(micro-meters)	0.5 – 0.4
Maximum use temperature	(C)	1000