

## Silicon Nitride Ceramic Material Properties - SU0483

Properties	Unit	Value
Content	wt%	88
Density	g/cm <sup>3</sup>	3.23
Water Absorption	%	0
Coefficient of Linear Thermal Expansion	×10 <sup>-6</sup> /k	3.2
Modulus of Elasticity (Young's Mod.)	GPa	300
Poisson's Ratio	/	0.26
Hardness (Hv)	MPa	1500
Flexural Strength (@ R.T.)	MPa	720
Flexural Strength (700°C)	MPa	450
Compressive Strength (@ R.T.)	MPa	2300
Fracture Toughness, K <sub>Ic</sub>	MPa·m <sup>1/2</sup>	6.2
Thermal Conductivity (@ R.T.)	W/m·k	25
Electrical Resistivity (@ R.T.)	Ω·mm <sup>2</sup> /m	> 10 <sup>13</sup>
Max. Use Temperature (no loading)	°C	1050
Corrosion Resistance	/	Excellent

*Remark: The value is just for review. Different working conditions may cause some difference.*