

Reaction Bonded Silicon Nitride/Si₃N₄ Rod

Formula: Si₃N₄

Diameter: 2mm

Length: 100mm

UOM Code: 229-721-58

SKU: 1000096250-group

Product Code: SI63-RD-000120

Material Properties for Ceramics

Chemical Resistance

Element	Value
Acids - concentrated	Fair
Acids - dilute	Good
Alkalis	Fair
Halogens	Good
Metals	Fair

Electrical Properties

Element	Value
Dielectric constant	10
Volume resistivity(Ohmcm)	>10 ¹² @25

Physical Properties

Element	Value
Apparent porosity(%)	15-23
Density(gcm ³)	2.4

Thermal Properties

Element	Value
Upper continuous use temperature(C)	1200-1500
Specific heat(J K ⁻¹ kg ⁻¹)	690@25°C
Thermal conductivity(W m ⁻¹ K ⁻¹)	10-16@20°C

Element	Value
Coefficient of thermal expansion($\times 10^{-6} \text{ K}^{-1}$)	3.3@20-1000°C

Mechanical Properties

Element	Value
Tensile modulus(GPa)	170-220
Hardness - Vickers(kgf mm^{-2})	800-1000
Shear strength(MPa)	190-240
Tensile strength(MPa)	160

Pultrusions

Element	Value
Compressive strength(MPa)	550-650