

■ **Introduction:**

High temperature silicon nitride ceramic insulating ring is a kind of high performance insulating material, with excellent high temperature resistance, corrosion resistance, wear resistance, high strength, high hardness and so on. Silicon nitride ceramic insulating ring is mainly used for insulation, sealing and bearing of power equipment, high temperature equipment, petrochemical equipment and other fields.

■ **Technical data sheet:**

Properties	Unit	Data
Si3 N4 Content	%	≧92%
Density	g/cm <sup>3</sup>	≧3.1
Relative Density	g/cm <sup>3</sup>	>99.6
Elasticity Modulus	Gpa	300-500
Crushing Load Ratio	(25℃)%	≧45
Hardness	(Hv)Mpa	1800-2000
Fracture Toughness	Mpa•m <sup>1/2</sup>	7.0-8.5
Flexural Strength	Mpa	≧600
Poisson Ratio	/	0.25
Coefficient of linear expansion	10 <sup>-6</sup> K <sup>-1</sup>	3.2-3.4
Heat Conductivity	W•(M•K) <sup>-1</sup>	20-25
Surface smoothness	/	≤0.3
Electrical isolation	KV	≧20
Acid&Alkali Resistance	/	excellent
Magnetism	/	Without
Working Temperature	℃	1400

■ **Advantages:**

1. High temperature resistance: Si<sub>3</sub>N<sub>4</sub> insulating ring can work stably in high temperature environment for a long time, its use temperature can reach 1800℃ or more .
2. Good insulation performance: Insulating ring with Silicon nitride material has good insulation performance, can effectively isolate the current and prevent sparks
- 3.High strength: High strength of Si<sub>3</sub>N<sub>4</sub> insulating ring for high temperature, can bear large mechanical load.
- 4.Wear resistance: Silicon nitride ceramic insulating ring has high hardness, good wear resistance, can withstand high-speed movement and heavy pressure for a long time.

