



Silicon Nitride Ring

Seal rings produced by silicon nitride provide excellent mechanism strength and durability. Nextgen Advanced Materials supplies the Silicon Nitride Ring with high quality and fast delivery. Meanwhile, the customization is available.

Product Description

You are welcomed to come to our factory to buy the latest selling, low price, and high-quality Nextgen Silicon Nitride Ring. We welcome new and old customers to continue to cooperate with us for a bright future and provide you with the best after-sales service and timely delivery. Silicon nitride ring has great strength and fracture toughness, good thermal shock resistance, and excellent wear and impact resistance. It is ideal for a wide range of applications. Its low density and great strength also enable the optimal implementation of lightweight structures.

Silicon nitride ceramic is an inorganic material ceramic that does not shrink during sintering. There are five different methods to produce Silicon Nitride including SRBSN, GPSN, HPSN, HIP-SN, and RBSN, making the application and working material different slightly.



Specification

Mechanical Properties

Density	3.21 g/cm ³
Compressive Strength	3000 MPa
Flexural Strength	800 MPa
Weibull-Modulus m	15
Fracture Toughness K _{Ic}	6.5 MPa m ^{1/2}
Young's Modulus E	320 GPa
Poisson Ratio	0.28
Hardness Vickers (HV 1)	16 GPa
Thermal Properties	
Maximum Temperature (Inert Gas)	1200°C
Maximum Temperature (Air)	1100°C
Thermal Conductivity @ 20°C	28 W/mK
Thermal Conductivity @ 1000°C	16 W/mK
Thermal Expansion (20–100°C)	2*10 ⁻⁶ /K
Thermal Expansion (20–1000°C)	3.5*10 ⁻⁶ /K
Thermal Shock parameter R1	600 K
Thermal Shock parameter R2	15 W/mm
Electrical Properties	
Resistivity at 20°C	10 ¹² Ωcm
Resistivity at 800°C	10 ⁷ Ωcm
Dielectric constant	6 MHz