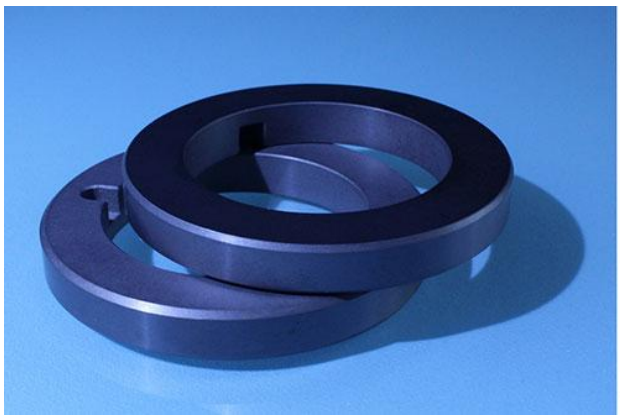
Silicon Nitride Seal Ring

The strength of silicon nitride, especially hot-pressed silicon nitride, is one of the hardest substances in the world, so are Silicon Nitride Seal Rings. Nextgen Advanced Materials supplies the Silicon Nitride Seal Ring with high quality and fast delivery. Meanwhile, the customization is available.

Product Description

Nextgen Advanced Materials INC Silicon Nitride Seal Ring have characteristic design & practical performance & competitive price, for more information on the Silicon Nitride Seal Ring, please feel free to contact us. Silicon nitride seal ring is a man-made composite product synthesized through several different chemical reaction methods.

Due to the even performance in high temperature, Si3N4 is a commonly used ceramic material in the metallurgical industry. It has excellent thermal shock resistance due to the microstructure. The creep and oxidation resistance of Si3N4 is also superior, its low thermal conductivity and high wear resistance also make it an outstanding material that can withstand conditions of most industrial applications.Seal rings produced by silicon nitride provide excellent mechanism strength and durability.



Specification

Color	Grey
Mechanical Properties	
Density	3.21 g/cm3
Compressive Strength	3000 MPa
Flexural Strength	800 MPa

Weibull-Modulus m	15
Fracture Toughness KIc	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)	3.510-6/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