

Silicon Nitride Bonded Silicon Carbide



Silicon nitride bonded silicon carbide has excellent wear resistance even at high temperatures and is also known for its corrosion resistance and thermal shock resistance. Nextgen Advanced Materials supplies the Silicon Nitride Bearing with high quality and fast delivery. Meanwhile, the customization is available.

Product Description

As the professional manufacture, we would like to provide you high quality Nextgen Silicon Nitride Bonded Silicon Carbide. We follow the principle of assured quality and series price and are happy to serve you. Silicon nitride bonded silicon carbide (NBSC) is well-known for its excellent wear resistance and oxidation resistance, high thermal conductivity and thermal shock resistance, even at high temperatures. Nitride bonded silicon carbide materials also possesses ideal refractory and chemical properties. NBSC resists wetting by non-ferrous metals. It is a semiconductor at high temperatures.



Specification

>Chemical Composition	Sic	75%
	Si3N4	≥23%
	Free Si	0%
Bulk density (g/cm3)	2.70~2.80	
Apparent porosity (%)	12~15	
Bend strength at 20 oC (MPa)	180~190	
Bend strength at 1200 oC (MPa)	207	
Bend strength at 1350 oC (MPa)	210	
Compressive strength at 20 oC (MPa)	580	



Thermal conductivity at 1200 oC (w/m.k)	19.6
Thermal expansion coefficient at1200 oC (x 10-6/oC)	4.7
Thermal shock resistance	Excellent
Max. temperature (oC)	1600