



## Nitride Bonded Silicon Carbide

Engineering Ceramic as a professional Nitride Bonded Silicon Carbide (NSiC) manufacturer, you can rest assured to buy Nitride Bonded Silicon Carbide from our factory and we will offer you the best after-sale service and timely delivery.

### Product Description

Engineering Ceramics Co., Ltd. is a Nitride Bonded Silicon Carbide Ceramic manufacturer and suppliers in China. We provide high quality and precision machined NSiC ceramic components which process by

- 1.Slip casting
- 2.Extruding
- 3.Uni Axial Pressing
- 4.Isostatic Pressing

Nitride Bonded Silicon Carbide Ceramic is well-known for its excellent wear resistance and oxidation resistance, high thermal conductivity and thermal shock resistance, and the high temperatures. NSiC is one of the greatest cross-sections of material properties across both oxide and non-oxide fine ceramic groups. As a specialist solution for extreme working environments, under the requirements for some of the harshest industrial conditions in the world. Engineers and process managers in a range of challenging fields utilize silicon nitride ceramics to add value to their production chains, through superior mechanical and thermal performance over extended life cycles.

#### Nitride Bonded Silicon Carbide Properties

>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 at 1200 oC ( $\times 10^{-6}/\text{oC}$ )	4.70
Thermal shock resistance	Excellent
Max. temperature (oC)	1600

Nitride Bonded Silicon Carbide Advantage Performance:

High thermal conductivity

Excellent cryolite melt and liquid aluminum resistance

High electrical resistivity

Low thermal expansion

Low porosity

Engineering Ceramic Co., Ltd's (Brand EC) has been able to provide application solutions based on we are the member of China silicon carbide association and the China National silicon carbide ceramic products standard committee member. Now our Chinese Nitride Bonded Silicon Carbide (NSiC) Ceramic factory have China National certificated Laboratory, the ISO9001 quality management system certification, ISO41001 environmental management system certification, and OHSAS18001 occupational health & safety management system certification.

Engineering Ceramic Co., Ltd's (Brand EC) Chinese factory founded on 2003, as the professional Nitride Bonded Silicon Carbide (NSiC) Ceramic manufacturers and suppliers in China, we have rich experience for quality control, packing and delivery, every purchase order will have tolerance inspection report, our packing department can ensure the cargo under safety and faster shipment.