

## Refractory Nitride bonded silicon carbide beam support

### ■ Introduction:

Refractory nitride boned silicon carbide beam support is mainly used in filter, quartz crucible, sanitary ware and high tension insulator industries. The NSIC nitride boned silicon carbide beam support is used as supporting in the kiln. NSIC nitride boned silicon carbide products are structure ceramic material made by casting high purity silicon carbide and silicon powder and sintered through nitrification process.

### ■ Technical data sheet:

Item	Unit	Data
Contents: SIC		≥75
Si <sub>3</sub> N <sub>4</sub>	Vol%	≥23
Si		0
Bulk Density 20 C	g/cm <sup>-3</sup>	2.75-2.85
Apparent porosity	%	13- 15
Modulus of rupture(20 C)	Mpa	160- 180
Modulus of rupture(1200 C)	MPa	170- 180
Modulus of rupture(1350 C)	MPa	170- 190
Modulus of crushing(20 C)	MPa	580
Thermal conductivity(1200 C)	W.m <sup>-1</sup> .k <sup>-1</sup>	19.6
Thermal expansion(1200 C)	a×10 <sup>-6</sup> /C	4.70
Thermal shock resistance(1200 C)		Excellent
Max. Working temperature	C	1580

### ■ Advantages:

1. Nitride boned silicon carbide beam support has excellent heat resistance in high temperature environment, can withstand high temperature up to 1700℃.
2. NSIC nitride boned silicon carbide beam has excellent anti-corrosive energy and can be used in corrosive environment such as acid base.
3. NSIC square beam support With excellent mechanical strength, can withstand high pressure and heavy load.
4. Nitride boned silicon carbide material has good wear resistance and can be used for a long time in high speed friction environment.

