

## Refractory NSIC support pillars for table ware

### ■ Introduction:

Refractory NSIC (nitride boned silicon nitride ceramic) support pillars are widely used in the manufacture of table ware such as plates, bowls, cups and saucers. The refractory silicon carbide pillars as a stable and durable base during firing and glaze treatment. The NSIC support as kiln furniture are placed on the kiln rack, and the table ware is placed on the support pillars. Support pillars provide support and prevent the pottery from warping or breaking during firing. NSIC is a kind of ceramic material with excellent thermal conductivity, high strength and good temperature resistance.

### ■ 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 support material has high strength and hardness, can withstand high stress and load.
2. Nitride boned silicon carbide support material can work in acid, alkali and other corrosive environment, with good corrosion resistance.
3. Nitride boned silicon carbide support material has high temperature stability and can work stably in high temperature environment for a long time.
4. Nitride boned silicon carbide support material is lighter than traditional materials, which can reduce the weight and mass of the equipment.
5. Due to its high strength, corrosion resistance, high-temperature stability and wear resistance, the nitride boned silicon carbide support material has a long life and reduces equipment maintenance and replacement costs

