

NSIC heater ceramic thermocouple protection tube

■ Introduction:

Nitride boned silicon carbide (NBSC) heater ceramic thermocouple protection tube is a kind of ceramic pipe used to protect thermocouple elements in high temperature environment. Ceramic thermocouple protection tube of NBSC heater has excellent shock resistance, high mechanical strength and good resistance to chemical corrosion. They can withstand temperatures of up to 1500°C, making them ideal for use in harsh environments such as metalworking, ceramic and glass manufacturing.

■ Technical data sheet:

Item	Unit	Data
Contents: SIC		≧75
Si3 N4	Vol%	≧23
Si		0
Bulk Density 20 C	g/cm ⁻³	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 ⁻¹ .k ⁻¹	19.6
Thermal expansion(1200 C)	a×10 ⁻⁶ /C	4.70
Thermal shock resistance(1200 C)		Excellent
Max. Working temperature	C	1580

■ Advantages:

1. Due to the advanced ceramic materials such as nitride boned silicon carbide, so NSIC ceramic heater protection tube can maintain stable performance at high temperature, there will not be excessive thermal expansion and contraction problem.
2. Because of its excellent high temperature stability, corrosion resistance, wear resistance and thermal conductivity, nitride boned silicon carbide thermocouple protection tube can work stably for a long time and has a long service life.
3. Nitride boned silicon carbide thermocouple protection tube has good thermal conductivity, can effectively transfer heat, improve heating efficiency



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