

■ **Introduction of RBSiC ceramic high temperature resistant parts:**

RBSiC ceramic is made by reacting silicon with carbon and forming silicon carbide (SiC) in situ. This process creates a ceramic material with a high density, high strength, and high corrosion resistance.

RBSiC ceramic high temperature resistant parts are used in a wide range of industrial applications where high temperatures, thermal shock, and abrasion resistance are required. These parts can withstand temperatures up to 1650° C (3000° F) without losing their strength or shape.

■ **Technical data sheet of RBSiC ceramic high temperature resistant parts:**

Item	Unit	Data
Temperature of application	°C	1380°C
Density	G/cm ³	>3.02
Open porosity	%	<0.1
Bending strength	Mpa	250 (20°C)
	MPa	280 (1200°C)
Modulus of elasticity	GPa	330 (20°C)
	GPa	300 (1200°C)
Thermal conductivity	W/m.k	45 (1200°C)
Coefficient of thermal expansion	K-1 ×10-6	4.5
Rigidity	/	13
Acid-proof alkaline	/	excellent

■ **Examples of RBSiC ceramic high temperature resistant parts include:**

1. Burner Nozzles: RBSiC ceramic burner nozzles are used in high-temperature furnaces and kilns for efficient combustion of fuels.
2. Thermocouple Protection Tubes: RBSiC ceramic thermocouple protection tubes protect the thermocouple sensors from high temperatures and chemical corrosion.
3. Kiln Furniture: RBSiC ceramic kiln furniture, such as shelves and supports, are used to hold and support ceramic products during firing.
4. Heat Exchangers: RBSiC ceramic heat exchangers are used in high-temperature applications where metal heat exchangers would corrode or fail.
5. Ceramic Seals: RBSiC ceramic seals are used in high-temperature and high-pressure applications, such as in pumps, compressors, and valves.

Ceramic high temperature resistant parts are a reliable and efficient solution for industrial applications that require high temperature resistance and excellent mechanical properties.

