

■ **Introduction of RBSiC Silicon carbide ceramic cantilever paddle beam:**

A RBSiC (Reaction Bonded Silicon Carbide) ceramic cantilever paddle beam is a type of beam made from silicon carbide ceramic material. It is used in various industrial applications such as chemical processing, semiconductor manufacturing, and aerospace.

■ **Technical data sheet of RBSiC Silicon carbide ceramic cantilever paddle beam:**

Item	Unit	Data
Temperature of application	°C	1380°C
Density	G/cm <sup>3</sup>	>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

■ **Advantages of RBSiC Silicon carbide ceramic cantilever paddle beam:**

(1)RBSiC Silicon carbide cantilever paddle is a type of beam that is supported at only one end, with the other end free to move. The RBSiC material used in the cantilever paddle beam provides high strength, hardness, and durability. It also has excellent thermal shock resistance, making it suitable for use in high-temperature environments.

(2)The RBSiC Silicon carbide cantilever beam is designed to be lightweight and stiff, making it ideal for applications where high accuracy and precision are required. It can be used as a probe to measure various properties such as temperature, pressure, and force.

(3)The RBSiC ceramic material used in the Silicon carbide cantilever propeller is produced by a process called reaction bonding. This process involves the infiltration of liquid silicon into a porous carbon or silicon carbide preform, which is then heated to high temperatures to form a dense ceramic material.

