CARBONIZED SILICON CARBIDE CARRIER - 6-INCH 9-SLOT SQUARE WAFER CARRIER PRODUCT INTRODUCTION

Silicon carbide carriers, also known as SiC trays, SiC etching trays, or ICP etching trays, are widely used in the semiconductor industry for processes such as CVD, RTP/RTA, vacuum sputtering, etching, deposition, and gas deposition. For example, during substrate etching, semiconductor substrates need to be carried by silicon carbide carriers.

Silicon carbide possesses high temperature resistance (up to 1500°C), high stiffness, low thermal expansion coefficient, and excellent chemical inertness, making it widely applicable in high-temperature, high-corrosion, and high-precision conditions in industries such as photovoltaics, semiconductors, new energy, and aerospace. For instance, silicon carbide grinding wheels used in silicon wafer polishing have a lifespan 2-3 times longer than traditional alumina polishing wheels. Silicon carbide tubes, with their high temperature and wear resistance, are used as transport channels in high-temperature silicon production processes, ensuring no contamination of the silicon material and guaranteeing product quality.

Silicon carbide carrier material consists of pure SiC (purity > 99.9%). Compared to graphite-based carriers, silicon carbide carriers have four times the lifespan and remain stable without deformation during long-term use. They can withstand corrosion from various strong acids and bases (such as HF acid and concentrated H2SO4). SiC carriers also exhibit excellent thermal conductivity, low expansion coefficient, good thermal shock resistance, and resistance to plasma impact.

Silicon carbide carriers are made from high-purity ultrafine silicon carbide powder through a process of isostatic pressing and sintering at 2450°C. They can be precisely machined according to user design drawings, including outer diameter, thickness dimensions, hole quantity, size, and position, and slot location and shape, to meet specific user requirements.

The main characteristics of silicon carbide carriers are as follows:

1.High Temperature Resistance: They can be used normally at temperatures up to 1800°C.

2.High Thermal Conductivity: Comparable to graphite materials in thermal conductivity.

3.High Hardness: Second only to diamond and cubic boron nitride in hardness.

4.Corrosion Resistance: Resistant to corrosion from strong acids and bases, exhibiting better corrosion resistance than tungsten carbide and alumina.

5.Lightweight: With a density of 3.10g/cm3, similar to aluminum.

6.No Deformation: Minimal thermal expansion coefficient.

7.Thermal Shock Resistance: The material can withstand rapid temperature changes, exhibiting resistance to thermal shock and maintaining stable performance under rapid heating and cooling conditions.

SILICON CARBIDE WAFER CARRIER - CIRCULAR DISC

Silicon carbide wafer carriers, also known as SiC trays or SIC etching trays, are extensively used in the semiconductor industry for processes such as CVD, RTP/RTA, vacuum sputtering, etching, deposition, and gas deposition. For instance, during substrate etching, semiconductor substrates need to be carried by silicon carbide carriers.

Silicon carbide exhibits high temperature resistance (up to 1500°C), high stiffness, a low thermal expansion coefficient, and excellent chemical inertness, making it widely applicable in high-temperature, high-corrosion, and high-precision conditions in industries such as photovoltaics, semiconductors, new energy, and aerospace. For example, silicon carbide grinding wheels are used in the silicon wafer polishing field, offering a lifespan 2-3 times longer than traditional alumina polishing wheels.

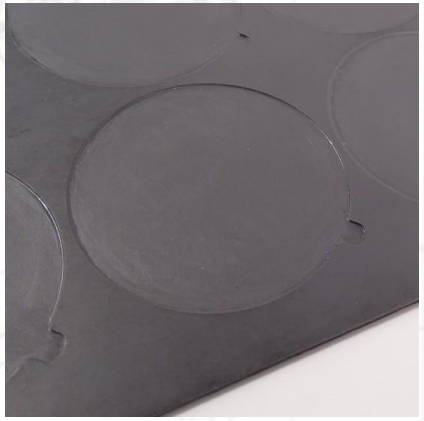
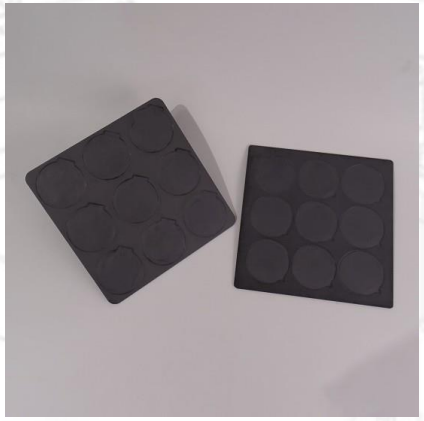
Silicon carbide tubes, with their high temperature and wear resistance, are used as transport channels in high-temperature silicon production processes, ensuring no contamination of the silicon material during production and guaranteeing product quality.

The main characteristics of silicon carbide wafer carriers are:

1.High Temperature Resistance: Can be used normally at temperatures up to 1800°C.
2.High Thermal Conductivity: Equivalent to the thermal conductivity of graphite materials.
3.High Hardness: Second only to diamond and cubic boron nitride in hardness.
4.Corrosion Resistance: Resistant to corrosion from strong acids and bases, exhibiting superior corrosion resistance compared to tungsten carbide and alumina.
5.Lightweight: With a density of 3.10g/cm3, similar to aluminum.
6.No Deformation: Minimal thermal expansion coefficient.
7.Thermal Shock Resistance: The material can withstand rapid temperature changes, exhibiting resistance to thermal shock and maintaining stable performance under rapid heating and cooling conditions.

ADVANTAGE

- "Customization available based on customer-provided designs."
- "We have our own sintering furnace."
- "Operating temperature range: from -70°C to 300°C."
- "Flatness tolerance: 3 micrometers. Temperature variation controlled to 0.01mm."
- "Imported raw material procurement takes 7 days, domestic procurement takes 1 day."


CONTACT

- Shenzhen Bozhida Precision Machinery Co,.Ltd
- Contact：Feng Zhou
- Cell phone：13713988856
- QQ：65454745
- Add.：2/F, Building 17,Wunipeng Road, No.16 Wunipeng Road Xingiao StreetBaoan District, Shenzhen City,Guangdong Province,China
- Website：www.bzddrive.com / www.bozhidatech.com

A天然+铸件大理石周峰

广东 深圳

扫一扫上面的二维码图案，加我为朋友

Thanks