



新疆百特碳化硅陶瓷有限公司  
Xinjiang Baite SiC Ceramics Co.,Ltd

只专注生产  
重结晶碳化硅  
Only produce R-SiC Ceramic

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新疆百特碳化硅陶瓷有限公司只专注研发智造 - 重结晶碳化硅陶瓷，坐落于新疆图木舒克市五十团，厂房面积3500平方米，目前有高温真空烧结炉2台，年产80余吨RSiC精细陶瓷。

基于可靠的注浆成型技术不断改进，密度均匀且具有良好的尺寸稳定性，抗热震性得到进一步提升，可针对不同工况条件设计相应配方，满足各用户的不同需求。同时，积极与大中院校进行产学研合作，不断提高研发能力。

重结晶碳化硅陶瓷，包括：方梁、棚板、喷火嘴、炉管、辊棒、热电偶保护管、匣钵及各种异形件。亦可提供深加工服务，如：表面喷涂、平面研磨、开槽、打孔、线切割、CNC加工。产品主要应用于新型节能窑炉及高端装备，涉及领域涵盖：汽车、电子、工业节能、冶金化工、实验设备等。

“为客户创造价值”是我们的工作方针，百特公司愿以高性价比产品为广大客户服务，真诚欢迎各界朋友洽谈合作！

Baite SiC Ceramics Co.,Ltd located in Tumushuke City, Xinjiang Province. specially research and produce R-SiC technical ceramics(R ecrystallized SiC). now own 3500m²workshop, two sets of advanced furnaces, annually 80 tons RSiC ceramics.

By re-creating and improving slip-casting technology, can get higher & averaged density and better shape stability, thermal shock ability has much improved, our technical team is pleased to offer right solution upon customer's different requirements. Meanwhile keep close cooperation with material institutions, for higher our creation ability.

High quality RSiC ceramic & kiln furniture including: beam, plate, burner nozzle, roller, furnace tube, thermocouple sheath, crucible, customized parts etc. Further process is also available, like: alumina coating, grinding, grooving, drilling etc, customized upon drawing or sample is supported. Baite's R-SiC ceramics mainly used for advanced kiln & equipment, service on technical ceramic, auto, electronic, industrial energy saving, metallurgy & chemical etc.

“Drive Customer's Value” is our working principle, Baite company is pleased to offer good services with reliable goods, welcome your visit!

属于新型无机非金属材料，它由高纯度碳化硅粉体，经注浆成型工艺，在2500℃高温下烧制而成，凭借诸多优异性能，在先进陶瓷、装备制造、高温材料等领域得到广泛应用。

Recrystallized SiC ceramic, made from high purity green SiC powder, formed by slip casting way, fired under 2500C. with much advantages, getting more popular with technical ceramics, high-tech equipment, high temperature materials...

特点 Feature:

- ★ 超高使用温度1700℃；
- ★ 高导热，节能环保；
- ★ 高硬度、耐磨耐腐蚀；
- ★ 高抗氧化性，寿命更长；
- ★ 轻薄，但强度大承载力高。
- \* Max working temperature is 1700℃
- \* High thermal conductivity, energy saving
- \* Big hardness, wear & corrosion resistance
- \* Better anti-oxidation performance, longer life
- \* Light weight, while higher loading capacity.

应用Application:

- ★ 新型高温窑具；
- ★ 高温陶瓷结构件；
- Advanced high temp kiln furniture
- High temp structural or functional parts

技术指标 ( Technical Data Sheet of R-SiC )

Item	Unit	Data
Bulk density 体积密度	g/cm <sup>3</sup>	2.72 (adjustable)
Porosity 气孔率	%	15 (adjustable)
Compression strength 耐压强度	Mpa	500-700
Bending strength 抗折强度	MPa(at 20 ℃) MPa(at 1200 ℃)	90 120
Young's modulus 杨氏模量	GPa(at 20 ℃)	250
Thermal conductivity 导热系数	W/MK	23
Thermal expansion 热膨胀系数	10 <sup>-6</sup> K <sup>-1</sup>	4.7
Max Working Temperature 安全工作温度（氧化气氛）	℃	1650 ( under oxygen atmosphere )
SiC 碳化硅	%	> 99



梁 Beam >>>

具有优异的高温抗折强度、抗热震及高导热性能，在1650℃甚至1700℃高温、高载荷环境下，仍然能保持良好的尺寸稳定性，作为各种高温窑炉的承重结构架。广泛用于氧化铝陶瓷、氧化锆陶瓷、泡沫陶瓷、蜂窝陶瓷、磁性材料、高压电瓷、耐火材料等领域。

RSiC beam as kiln furniture widely used for loading structure systems of high temperature industrial kilns. higher strength & no deformation even in 1650-1700℃ working temperature, display longer life and excellent thermal conductivity lead to energy saving with less weight of kiln car. applied following fields:

- \* Alumina & Zirconia ceramics
- \* Foam & honeycomb ceramics
- \* ITO target & magnetic materials
- \* Electrical porcelain & refractory materials...



板 Plate >>>

具有导热好、抗氧化、高温高承载力等特点，较传统材料，厚度可以更薄，最高使用温度1700℃。高温工况下良好的尺寸稳定性，用于辊道窑、隧道窑和梭式窑，轻量化理想窑具，更节能，主要应用于氧化铝&氧化锆精细陶瓷、ITO靶材、泡沫陶瓷等高温领域；

RSiC plate has higher loading capacity with smaller thickness, higher thermal conductivity, also no deformation & good oxidation resistance under 1700℃. mainly as kiln shelves in the following industry:

- \* Alumina & Zirconia ceramics
- \* Foam & honeycomb ceramics
- \* ITO target & magnetic materials



烧嘴套 Burner Nozzle >>>

该产品是辊道窑、隧道窑、梭式窑理想的喷火窑具，特别适用于陶瓷、玻璃、化工、冶金等行业使用天然气、煤气的工业窑炉，使用温度高达1700℃，使燃烧更充分并有效控制窑炉的横断面温差，使温度更均匀，可依图纸或样品生产。

R-SiC burner nozzle has excellent oxidation resistance & longer using life under 1700℃, no impurities appear (No-pollution on firing products) under super high temperature, it's an ideal kiln furniture as flame tubes in high temp fields. To fit:

- \* tunnel kiln;
- \* shuttle kiln;
- \* roller hearth kiln...



管 Tube >>>

重结晶碳化硅管最高使用温度1700℃，耐高温，抗氧化，耐腐蚀，导热好，不变形！可按要求订制各种炉管、保护管、辊棒、扩散管等。主要应用于：高温管式炉、磁性材料、高温仪表、高温辊道窑。

RSiC tubes including "Roller" "Furnace pipe" & "thermocouple protection tube". With higher bending strength and no deformation under long term working temp 1700℃, its life is much more than Alumina. Widely used for :

- \* Magnetic Materials
- \* Tubular furnace
- \* Roller hearth kiln
- \* Thermocouple & furnace liner





## 匣钵&特殊产品订制 >>>

Crucible & Customized ceramic

重结晶碳化硅匣钵，在超高温领域表现突出，在某些条件下，取代氧化铝、石英、刚玉莫来石材质的坩埚，具有更强的耐腐蚀性能及更长的使用寿命。适用于各种超高温领域的粉体煅烧、高温实验设备等。

由于采用注浆成型工艺，使得各种异形件的制作成为可能，如对公差及形状有更严格要求，可进行精密加工，平面磨、线切割、车螺纹、开槽打孔及CNC加工。

RSiC crucible has excellent properties of high temp+high strength+oxidization resistance +corrosion resistance, instead of Alumina or Quartz material, as ideal kiln furniture & machine parts, by slip-casting way, can produce special shaped parts according to drawing, want higher precision ceramic, we can do grinding, linear-cutting,threading,grooving & CNC process. widely used for

- \* Powder sintering
- \* Scientific testing
- \* Advanced machine spares



## 用户小提示 User Tips



- ★ 陶瓷易碎，轻拿轻放      Fragile, handle with care;
- ★ 避免急冷急热      Avoid rapid heating or cooling;
- ★ 保持干燥，使用前最好预热      Keep dry & preheat it before using;
- ★ 如需避免污染产品，做氧化铝涂层      Make alumina coating for avoiding dirty;
- ★ 装窑时，确保受力均匀      Kiln furniture should be aligned when assembling.

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