LS（SGR）硅碳棒技术指标

1、发热体密度：2.8g/cm3
2、气孔率：<5%
3、抗折强度：98MPa at 25℃
4、比热：1.0 kj/kg+℃　at 25℃–1300℃
5、热传导率：16–21W/m+℃　at 1000℃
6、电阻率：0.016Ω　cm at 1000℃
7、热膨胀系数：4.5　1000℃(X 10–6/℃)

1, Heating density: 2.8g/cm3
2, porosity: <5%
3, bending strength: 98MPa at 25℃
4, specific heat: 1.0 kj/kg+℃ at 25℃–1300℃
5, heat conductivity: 16–21W/m+℃ at 1000℃
6, resistivity: 0.016Ω cm at 1000℃
7, coefficient of thermal expansion: 4.5 1000℃(X 10–6/℃)

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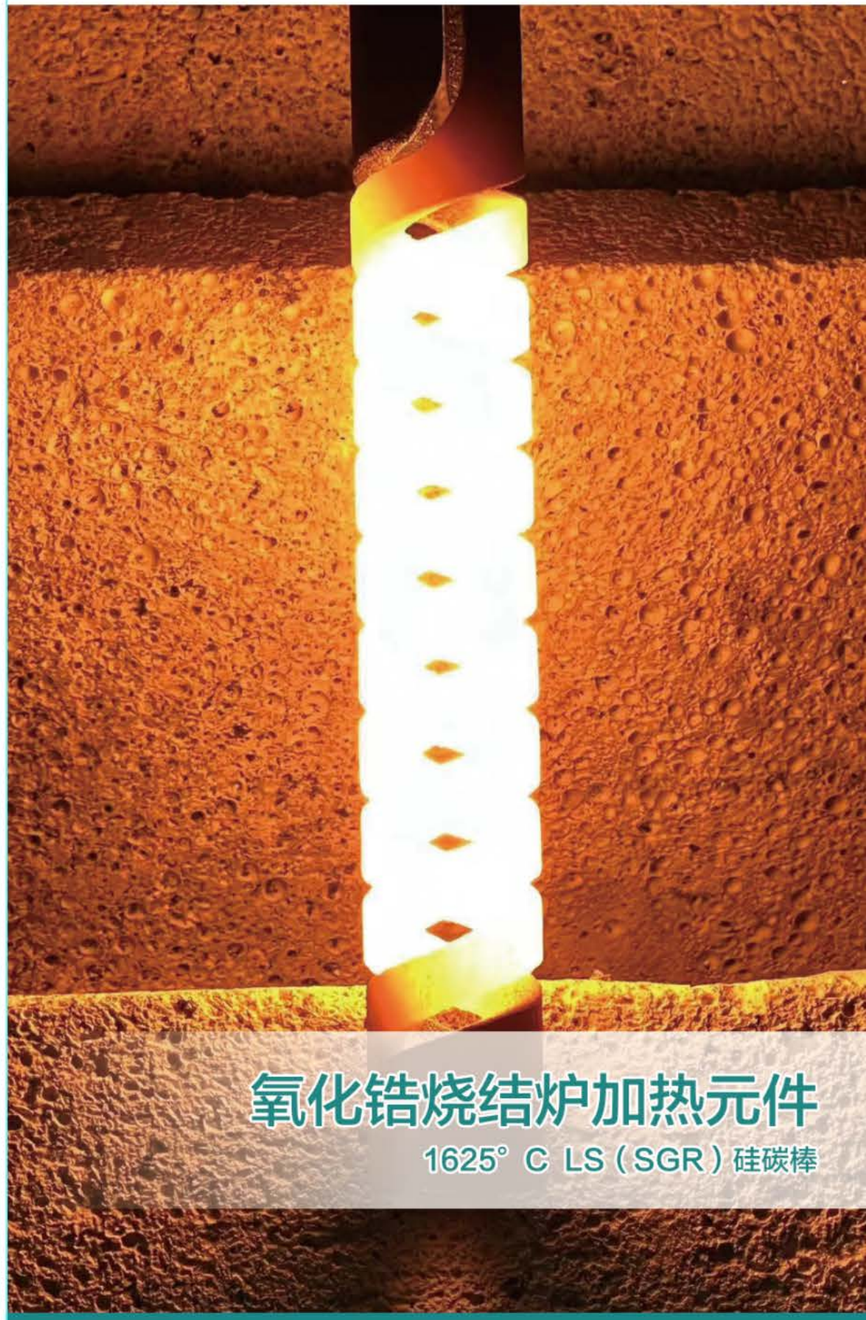


氧化锆烧结炉加热元件

1625° C LS（SGR）硅碳棒

江 苏 环 能 硅 碳 陶 瓷 有 限 公 司
JIANGSU HUANNENG SILICON CARBON CERAMICS CO., LTD

公司简介

江苏环能硅碳陶瓷有限公司致力于研发高性能碳化硅电热元件（硅碳棒）及碳化硅陶瓷，自2001年成立以来，以不断创新的精神制造高技术、高品质的产品。公司自2006年起，与多家高等院校研究所合作研究新型碳化硅电热元件（硅碳棒），并采用高起点的生产设备、新建的生产工艺技术，率先打破了传统国产碳化硅电热元件（硅碳棒）生产方式，经过多年来的不懈努力、不断创新，掌握了碳化硅电热元件（硅碳棒）的核心技术，并成功研发出自主知识产权的独有生产工艺。我司生产的SICTECH品牌碳化硅电热元件（硅碳棒）产品质量达到了世界先进水平。

SICTECH提供各种规格高品质硅碳棒（碳化硅电热元件）：GD（直棒）、HGD（高密度直棒）、U型、W（三相）型、LD（单螺纹）型、LS（双螺纹）型等产品（可根据客户设计需要定制特殊规格的硅碳棒），已经广泛用于玻璃、陶瓷、磁材、粉末冶金等热处理行业，并出口到世界30多个国家和地区。

我公司拥有一批优秀的技术人员，可根据我们的生产经验和产品特点，选择最佳的设计方案，免费为用户提供设计服务。也可按照客户的特殊要求和设计，为广大客户提供特殊的定制产品。

Jiangsu Huaneng Silicon carbon Ceramics Co., Ltd. is committed to the research and development of high-performance silicon carbide heating elements (silicon carbon rod) and silicon carbide ceramics, since its establishment in 2001, with the spirit of continuous innovation to produce high-tech, high-quality products. Since 2006, the company has cooperated with a number of institutes of higher learning to research the new type of silicon carbide electric heating element (silicon carbon rod), and adopted high starting point production equipment, new production technology, took the lead in breaking the traditional domestic silicon carbide electric heating element (silicon carbon rod) production mode, after years of unremitting efforts, continuous innovation, Mastered the core technology of silicon carbide electric heating element (silicon carbon rod), and successfully developed a unique production process with independent intellectual property rights. Our SICTECH brand silicon carbide electric heating element (silicon carbon rod) product quality has reached the world's advanced level.

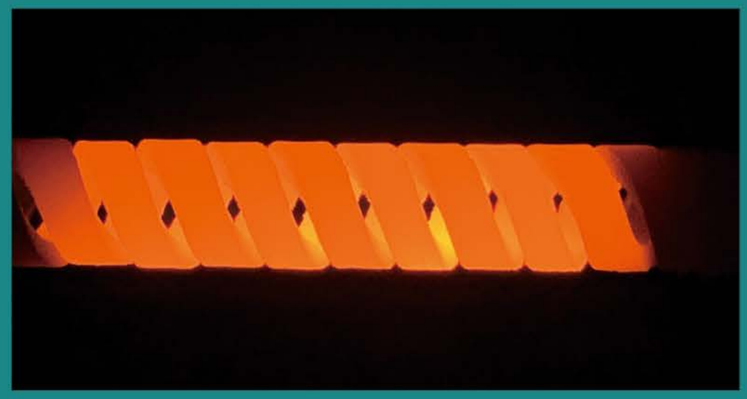
SICTECH provides a variety of specifications of high quality silicon carbon rods (silicon carbide heating elements) : GD (straight rod), HGD (high density straight rod), U type, W (three-phase) type, LD (single thread) type, LS (double thread) type and other products (can be customized according to customer design needs special specifications of silicon carbon rod), has been widely used in glass, ceramics, magnetic materials, powder metallurgy and other heat treatment industry, and exported to more than 30 countries and regions in the world.

Our company has a group of excellent technical personnel, according to our production experience and product characteristics, choose the best design scheme, free design services for users. We can also provide special customized products for our customers according to their special requirements and designs.

LS（SGR）硅碳棒在氧化锆烧结炉应用

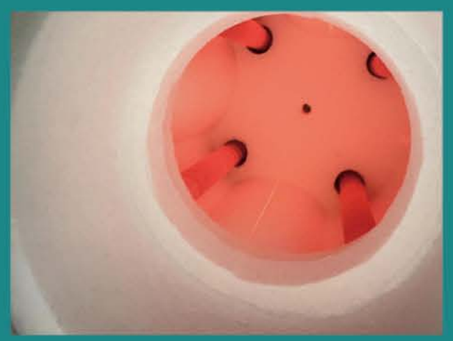
大多数氧化锆材料需要在1450~1550℃的高温烧结两个小时或以上，硅碳棒作为氧化锆烧结炉的常用电加热元件，可以用敞开式坩埚烧牙，不需要盖子，在单一的气氛下，这消除了坩埚内二重气氛，使烧结更加准确，因为修复体不会在第二种受热环境中烧结，硅碳棒可以快速降温且不会损坏元件。

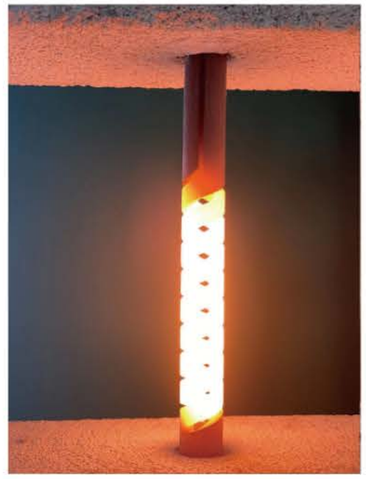
我们已经来到了一个新的时代，烧结精度对氧化锆美学和微观结构有着明确的影响，随着氧化锆材料科学的不断发展，为了实现可重复性的需求、烧结精度的提高和更严格的程序控制变得更加凸显，为了满足快速升温需求，环能通过不断研究，开发出内径60mm大直径螺旋硅碳棒，产品可在硅碳棒内部烧结，升温速度可达120℃/分钟，缩短了烧结时间，提高了生产效率。



Most zirconia materials need to be sintered at a high temperature of 1450~1550℃ for two hours or more. As a common electric heating element of zirconia sintering furnace, silicon carbon rod can be used to burn teeth with an open crucible without cover. In a single atmosphere, this eliminates the double atmosphere in the crucible and makes sintering more accurate, because the repair will not be sintered in a second heating environment. Silicon carbon rods can be cooled quickly without damaging components.

We have come to a new era, sintering accuracy has a clear impact on the aesthetics and microstructure of zirconia, with the continuous development of zirconia material science, in order to achieve repeatability needs, improve sintering accuracy and stricter program control becomes more prominent, in order to meet the rapid temperature rise demand, through continuous research, The product can be sintered inside the silicon carbon rod with an inner diameter of 60mm. The temperature rise rate can reach 120℃/ min, which reduces the sintering time and improves the production efficiency.





硅碳棒优点

1.采用高密度硅碳棒作为加热元件，避免了传统义齿结晶炉以硅钼棒为加热元件对牙冠形成的二次污染

2.易于替换安装、烧结周期短、功耗低以及占地面积小，设备最高温度达到 1560℃温度均匀分布

3.使用寿命长，安装、维修简单，好的产品设计方案和最佳的配件的选择才能保证炉温的均匀性

4.氧化锆烧结炉的炉膛采用四面加热，比起传统的马弗炉结晶炉的温场更均匀，烧成的牙冠通透性、一致性更好

1. The high density silicon carbon rod is used as the heating element to avoid the secondary pollution caused by the traditional denture crystallization furnace which uses silicon molybdenum rod as the heating element to form the dental crown

2. Easy to replace and install, short sintering cycle, low power consumption and small footprint, the highest temperature of the equipment reaches 1560℃ temperature uniform distribution

3. Long service life, simple installation and maintenance, good product design scheme and the best choice of accessories to ensure the uniformity of furnace temperature

4. The furnace of zirconia sintering furnace is heated from four sides. Compared with the traditional Muffle furnace, the temperature field of crystallization furnace is more uniform, and the fired crown has better permeability and consistency