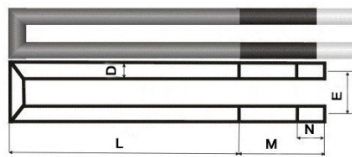


## High Temperature Silicon Carbide Rod



Silicon carbide rod made from high purity silicon carbide as main material, According to the a certain ratio of the material for doing the process making the rough-cast, after 2200 °C high temperature recrystallization silicide sintering to rod - shaped, tubular non - metal high - temperature electric heating element. under oxidizing atmosphere the normal using temperature can reach 1450 °C, Continuous use around 2000 hours. Silicon carbide rod it has high using temperature, it has high temperature resistance、oxidation resistance、corrosion resistance、fast temperature rise rate、Long using life、Less high temperature deformation、convenient installation and maintenance, it also has the excellent chemical stability.



外形尺寸: D\*M\*E      Apperance Dimension: D\*M\*E

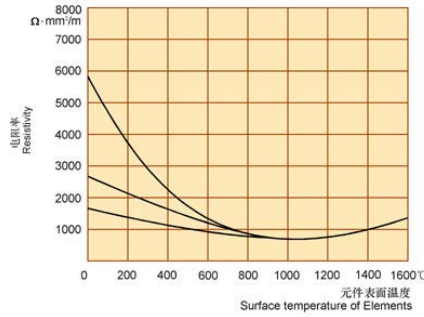
- D: Rod Diameter 棒体直径
- L: Length Of Heating Zone 热端长度
- M: Length Of Cold Zone 冷端长度
- N: Length Of Aluminum Spraying Part 喷铝部长度
- E: The Center Distance Of Rod 棒体中心距

### Model Of Silicon Carbide Rod

Our Company Can Offer "M" Shape Type, "U" Shape Type, "H" Shape Type And Vertical Type Silicon Carbide Rod, Customer can be inquire base on the furnace needs.

### The Electric Appliance Performance Of Silicon Carbide Rod

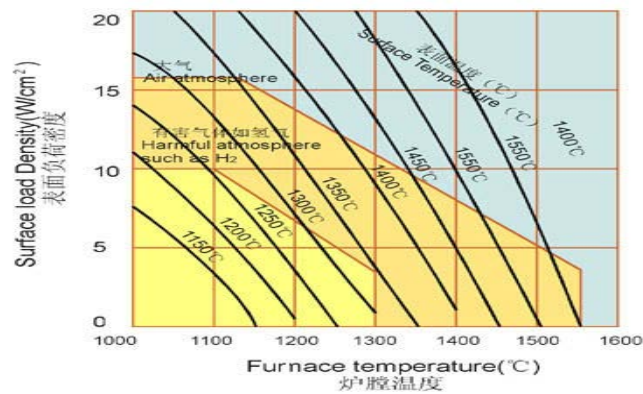
Silicon carbide rod it has the large Specific Resistivity, When Heating under air atmosphere, Heating part surface temperature around  $1050 \pm 50^\circ\text{C}$ , The Resistivity is  $600-1400\Omega\cdot\text{mm}^2/\text{M}$ . The resistance of the silicon carbide rod will be increase during the temperature changes, From indoor temperature to  $800^\circ\text{C}$ . Resistance temperature characteristic curve is negative values, Temperature above  $800^\circ\text{C}$  is positive values.



**The Load Of Silicon Carbide Rod Surface**

**The Load Of Silicon Carbide Rod Surface=Rated Power/ Heating part surface Proportion (W/cm<sup>2</sup>)**

The load of silicon carbide rod surface will be influencing the using life circle, that is why, When the electricity is heated, it should be strictly controlled within the allowable load range and should not be overloaded. Silicon carbide rod heating part surface temperature and each furnace temperature, heating part surface allowed load has given below.



**Effect of atmosphere on silicon carbide.**

The different gas atmosphere will influence the silicon carbide rod using life, During the process of using the Silicon carbide will be gradually oxidized to SiO<sub>2</sub>, Separation of SiC crystalline particles, increase the local resistance, volume expansion, and finally break. Silicon carbide heating elements in continuous use of clean air drying (1450°C) life up to 2000 hours.

Atmosphere	Maximum Working Temperature (°C)
Air	1600
Vacuum	1000-1200
Nitrogen	1350
Hydrogen	1200
Hydrocarbon	1250