

The thickness of the **silicon carbide protection tube|high temp silicon nitride thermocouple protection tube** is generally 5--6mm (except for special requirements). It is directly used for the outer protection tube of thermocouple, which can extend the life of thermocouple. The galvanic protection tube of other materials is easy to deform, while the silicon carbide protection tube is small. It has a longer service life and is mainly used as a thermocouple protection tube for temperature measurement in industrial kilns, especially in metal solutions such as zinc and aluminum.

high temp silicon nitride thermocouple protection tube Selection instructions

1. The choice of the length of the protective tube: the insertion depth in the furnace + the thickness of the furnace wall + the part left outside the furnace
2. When a protective tube is added to the thermocouple used for hoisting, it is recommended to fix the part of the silicon carbide protective tube outside the furnace with a clip.
3. When installing the silicon carbide protective tube and the electric couple, it should be slowly inserted into the furnace at the same time, and it can be used without preheating.

Common thermowell materials

材质 Material	使用温度 Temperature of use	特点及用途 Features and uses
1Cr18Ni9Ti	-200~800	具有高温耐蚀性，通常作为一般耐热钢使用 With corrosion resistance property in high temperature, it is usually used as a general heat-resistant steel
304	-200~800	低碳含量，具有良好耐晶间腐蚀性，通常作为一般耐热钢使用 Low carbon content, with good resistance to intergranular corrosion and it is usually used as a general heat-resistant steel
316	-200~750	低碳含量，具有良好耐晶间腐蚀性，作为耐腐蚀钢使用 Low carbon content, with good resistance to intergranular corrosion and it is usually used as a general heat-resistant steel
316L	-200~750	超低碳含量，具有良好耐晶间腐蚀性，作为耐腐蚀钢使用 Super-low carbon content, with good resistance to intergranular corrosion and it is usually used as a general heat-resistant steel
蒙乃尔Monel	-100~700	镍合金，具有良好耐晶间腐蚀性，适用于强硫酸等耐腐蚀性场合使用 Nickel alloy, with good resistance to intergranular corrosion and it is suitable for corrosion-resistance field where there are strong sulfuric acid and so on.
哈氏合金C-276 HastelloyC-276	-100~700	具有优良耐晶间腐蚀性，作为耐腐蚀钢使用 With excellent intergranular corrosion resistance and it is used as corrosion-resistant steel
Inconel600	-100~1000	镍铬铁合金，具有优良高温抗氧化性，通常作为耐热钢使用 Alloy of nickel, chromium and iron with excellent oxidation-resistance property and it is usually used as heat-resistant steel
310S	-200~1000	具有高温抗氧化性，耐腐蚀型，通常作为耐热钢使用 With oxidation-resistance property in high temperature corrosion resistance and it is usually used as heat-resistant steel
GH3030	0~1100	镍基高温合金钢，具有优良抗氧化性，耐腐蚀型，通常作为耐热钢使用 Nickel-based alloy steel of high temperature with excellent oxidation-resistance property and corrosion-resistance property and it is usually used as heat-resistant steel
GH3039	0~1300	镍基高温合金钢，具有优良抗氧化性，耐腐蚀型，通常作为耐热钢使用 Nickel-based alloy steel of high temperature with excellent oxidation-resistance property and corrosion-resistance property and it is usually used as heat-resistant steel
高铝质 High alumina	0~1300	工业陶瓷管，具有优良抗氧化性，耐腐蚀型 Industrial ceramic tube with excellent oxidation-resistance property and corrosion resistance.
刚玉质 Corundum	0~1600	工业陶瓷管，具有优良抗氧化性，耐腐蚀型 Industrial ceramic tube with excellent oxidation-resistance property and corrosion resistance.
3YC52	0~1300	高温合金，具有优良抗氧化性，耐腐蚀型，机械性能好，适用于高温场所 High-temperature alloy with excellent oxidation-resistance property and corrosion-resistance property, mechanical properties. It is suitable for places of high temperature
二硅化钼 Molybdenum disilicide	0~1600	具有优良抗氧化性，耐腐蚀型，机械性能好，适用于高温场所 With excellent oxidation-resistance property and corrosion-resistance property, mechanical properties. It is suitable for places of high temperature

[Anhui Tiankang](#) is made of pressureless sintered sub-micron silicon carbide powder, which has good high-temperature strength, abrasion resistance, thermal shock resistance, thermal conductivity and corrosion resistance, oxidation and erosion performance, even at high temperatures exceeding 1750°C It can still work reliably at all times, and is mainly used for temperature measurement in the hearth of the methanol plant coal gasifier, hot blast stove, cement kiln and strong acid and alkali.