

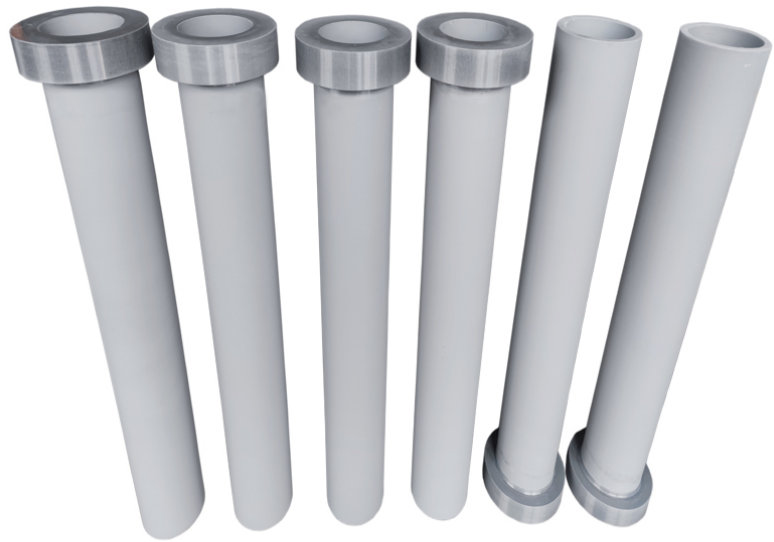
SILICON NITRIDE PRODUCTS

RISERTUBE (lift tube)

Si₃N₄ ceramics have the advantages of high strength, high thermal conductivity, excellent electrical properties, etc. Therefore, it has special application in extreme environments such as high temperature, high speed, and strong corrosion. With these performance, Silicon Nitride (Si₃N₄) become a suitable material for riser tube(Lift Tube).

Advantages

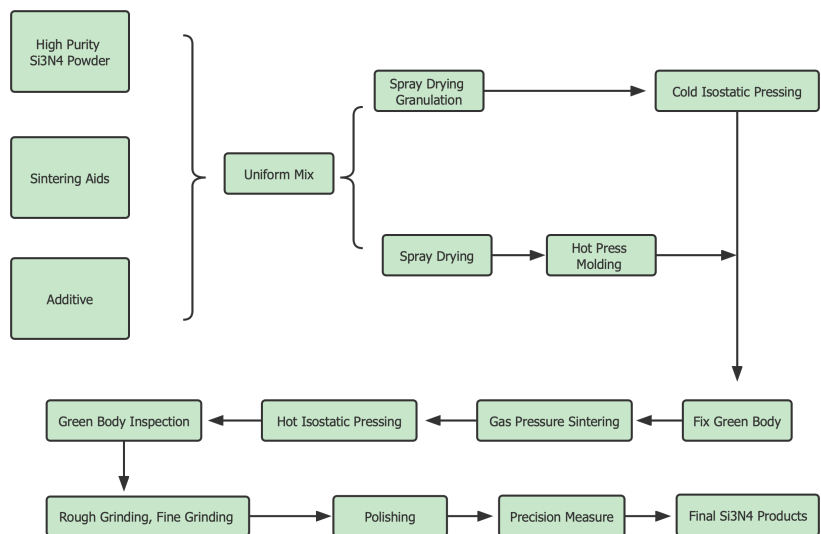
- ① High temperature resistance, corrosion resistance, non-wetting with non-ferrous metal melts, such as aluminum melt.
- ② Low thermal expansion coefficient, excellent thermal conductivity
- ③ Excellent thermal shock resistance, strong thermal shock resistance and no crack



Silicon Nitride(Si₃N₄)

Si₃N₄ ceramic is known for its high strength and toughness, as well as its excellent wear resistance, corrosion resistance and high using temperatures. It also has a low thermal expansion coefficient and good thermal shock resistance, which makes it as an excellent material for high-temperature applications.

Forming



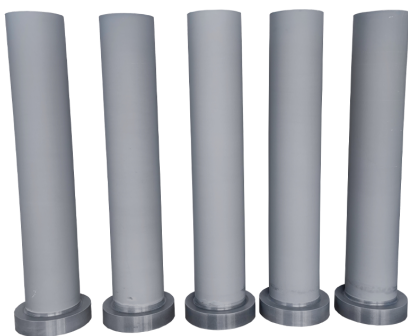


Application

Riser tube is one of the key components of antigravity casting. On the low pressure die casting machine, the riser tube (Lift Tube) is one of the key part and its performance directly affects the quality of the casting.

Packing

In plywood case with foam.



Data Sheet

Density	3.20±0.04g/cm ³
Apparent porosity	< 0.3%
Elastic modulus	300–320GPa
Compression strength ratio	35–45% (25C)
Hardness(HRA)	92–94Gpa
Fracture toughness	7.0–9.0/Mpa m ^{1/2}
Bending strength	800– 1000MPa
Poisson’s ratio	0.25
Webuller modulus	1.1– 1.3
Thermal conductivity	22–24W.(m.k)– 1
Corrosion resistance	Good
Size stability	Good
Magnetic	No



Heater Protection Tube

HEATER PROTECTION TUBE

Heater protection tubes use for electric heaters, gas burners, etc. And also usually for use in the aluminium and non-ferrous molten metal handling industries. Silicon nitride ceramics have good performance in heat resistance, thermal shock resistance, corrosion resistance and its non-sticking in contact with aluminium and aluminium alloy. With these performance, the Si₃N₄ (Silicon Nitride) is a good material for (Immersion) heater protection tube.

Advantages

- ① Good thermal conductivity
- ② Extremely high strength
- ③ Excellent thermal shock resistance and corrosion resistance

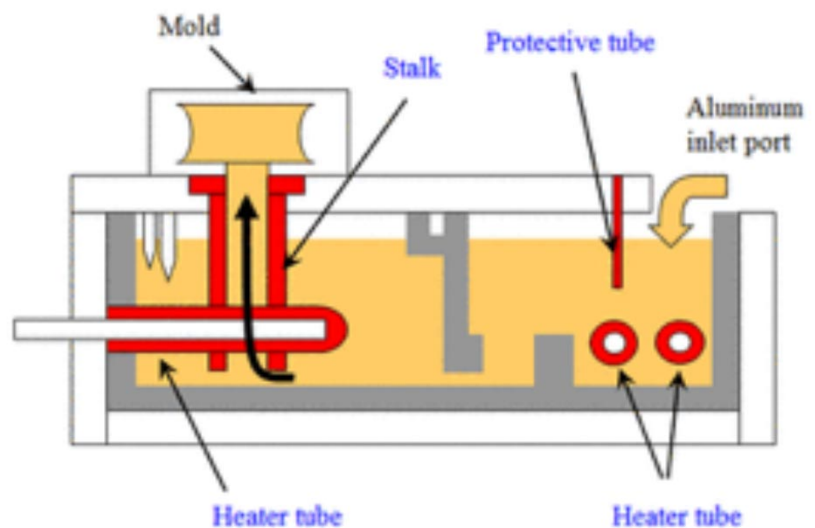


APPLICATION

Heating or keeping liquid metals warm

Packing

In plywood cases with foam



Thermocouple Protection Tube

Thermocouple Protection Tube (Sheath)

Silicon nitride has better high temperature capabilities, excellent thermal shock resistance and extremely strong corrosion resistance than most materials. With these properties, the Si₃N₄ is very suitable as the material of thermocouple protection tube.

Advantage

1. Excellent thermal conductivity
2. Excellent corrosion resistance
3. Excellent thermal shock resistance
4. High temperature resistance
5. Non-stick aluminum



Application

Using for molten metals to protect thermocouples

Packing

In plywood case with foam



Si3N4 CUSTOMIZED PRODUCT



As a professional manufacture, we can make the Si3N4 Ceramic according to customers' requirement.

