

Silicon Nitride(Si_3N_4)

Character: Silicon Nitride is a high purity and hard compound with stable thermal conductivity, low thermal expansion and high elasticity mode. Due to it's high breakage strength, is has higher thermal shock withstand ability and high anti-wearing ability. Then it is suitable for using in high temperature and high durable environment.

Appliction: Silicon Nitride is used in solar industry as the coating material inside the quartz crucible. It was located between the quartz crucible and Poly Silicon as the barrier of preventing from the impurity in the quartz crucible to go into the ingot.

Item	Content	Specified	Typical
Specification	Si_3N_4	>99%	>99%
	N	>38.5%	>38.8%
	O	<1.0%	<0.5%
	C	<0.25%	<0.16%
	Fe	<15ppm	<6ppm
	Ca	<10ppm	<8ppm
	Cr	<3ppm	<1ppm
	Ni	<3ppm	<0.5ppm
	Ti	<3ppm	<0.5ppm
	Cu	<3ppm	<0.5ppm
Characteristic	Si free		<0.2%
	Al		<1ppm
	W		<1ppm
	Mg		<0.5ppm
	K		<0.5ppm
	Mn		<0.5ppm
	V		<0.1ppm
	Co		<0.1ppm
Particle Size	Powder	d90 < 10 μm	d90 < 5 μm
		d50 < 2.5 μm	d50 < 2.2 μm
Packing	Drums	100Kg	