

■ Introduction:

Refractory Si3N4 silicon nitride crucible laboratory is a kind of high temperature wear resistant material, mainly made of silicon nitride powder. Refractory Si3N4 crucible has excellent chemical stability, high temperature stability and oxidation resistance, can bear high temperature, high pressure, strong acid, strong alkali and other corrosive substances corrosion, can be used in molten metal, high temperature reaction, chemical analysis, biopharmaceutical and other fields. Laboratory use Si3N4 crucible also has good thermal conductivity, can quickly and evenly transfer heat, ensure uniform sample heating, improve the accuracy and stability of the experiment.

■ Technical data sheet:

Properties	Unit	Data
Si3 N4 Content	%	≧92%
Density	g/cm ³	≧3.1
Relative Density	g/cm ³	>99.6
Elasticity Modulus	Gpa	300-500
Crushing Load Ratio	(25℃)%	≧45
Hardness	(Hv)Mpa	1800-2000
Fracture Toughness	Mpa•m ^{1/2}	7.0-8.5
Flexural Strength	Mpa	≧600
Poisson Ratio	/	0.25
Coefficient of linear expansion	10 ⁻⁶ K ⁻¹	3.2-3.4
Heat Conductivity	W•(M•K) ⁻¹	20-25
Surface smoothness	/	≤0.3
Electrical isolation	KV	≧20
Acid&Alkali Resistance	/	excellent
Magnetism	/	Without
Working Temperature	℃	1400

■ Advantages:

1. High temperature resistance: Refractory Si3N4 crucible has very high temperature resistance, up to 1800℃ above, can be suitable for high temperature chemical reaction, melting and baking process.
2. High hardness: The hardness of Laboratory use Si3N4 crucible is very high, up to 9.2 Mohs hardness, with good wear resistance and impact resistance.
3. High smoothness: Silicon nitride crucible surface smoothness is high, easy to clean and disinfect, reusable, reduce the cost of the experiment
4. High purity: high purity of Refractory silicon nitride crucible, no impurities, will not affect the experimental results, to ensure the accuracy and reliability of the experiment.

