



## Advanced Material & Metal Compounds

### □ Silicon Nitride Powder and Target



**Silicon Nitride Powder and Target**, white grey, odorless solid material, molar mass 140.28, 3.44g/cm<sup>3</sup>, melting point 1900°C, is a chemical compound of the elements silicon and nitrogen, with the formula Si<sub>3</sub>N<sub>4</sub>.

Silicon Nitride (Si<sub>3</sub>N<sub>4</sub>) is a high-melting-point solid that is relatively chemically inert, thermodynamically stable, features good thermal resistance, electrical isolation, corrosion resistance, high temperature resistance 10<sup>11</sup>~10<sup>12</sup>Ω.cm and long lifetime. With the combination of its strength, hardness, toughness, corrosion resistance, high-temperature capability, and reduced weight, Silicon Nitride (Si<sub>3</sub>N<sub>4</sub>) ceramic powder and sputtering target finds wide application in High-temperature material, metal working and cutting tools, high contact stress sliding or rolling contact, corrosive chemicals for petroleum chemical, ceramic field, automobile industry and electronics industry.



No.	Items	Standard Specification					
1	Purity	>99.9%					
2	Chemical Composition %	N	C	O	Al	Mg	S
		>38.5	≤0.2	≤1.25	≤0.005	≤0.02	≤0.03
		Fe	Ca	Cu	P	Mn	Bi
		≤0.01	≤0.005	≤0.01	≤0.01	≤0.01	≤0.01
3	Size	1-3umMicro grade or Nano grade					
	Component	Disc D600max x T0.05min mm Plate: L<350 x W<250 x T >1 mm					
4	Phase	β-Si <sub>3</sub> N <sub>4</sub> β>95%					
5	Relative Density	95%					
6	Packing	In vacuum plastic bag, with carton box outside.					
7	Remarks	Other specification and shape are available upon request					