

■ Introduction:

High temperature Si3N4 Silicon nitride silencing roller is a kind of roller material used in printing, coating and other industrial fields. Si3N4 Silicon nitride silencing roller is made of silicon nitride ceramic material, with high hardness, wear resistance, corrosion resistance, high temperature resistance and so on. In the printing process, High temperature Si3N4 roller can play a smooth, stable, lasting role, improve the printing quality and production efficiency. At the same time, due to its durability and stability, the silicon nitride ceramic silencing roller can also reduce the frequency of equipment maintenance and replacement, reducing production costs.

■ 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.Strong wear resistance: silicon nitride ceramics have very high hardness and wear resistance, can resist all kinds of wear and damage, so the service life of the Si3N4 roller for High temperature is longer.
- 2.Strong stability: silicon nitride ceramic thermal expansion coefficient is small, good thermal stability, not easy to deformation and cracking, so the Silicon nitride silencing roller can also run stably in high temperature .
- 3.Light weight and high strength: Silicon nitride ceramics are lighter than traditional metal materials, but have higher strength and can meet the requirements of high-speed equipment.

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4. Good high temperature resistance: silicon nitride ceramics can operate normally in high temperature environment, has excellent high temperature resistance, will not be deformed, cracked or failure due to high temperature.

