

■ **Introduction:**

Silicon nitride degassing pipe for aluminum casting is a kind of high temperature ceramic products, mainly used in high temperature, high pressure, strong corrosion environment exhaust system. For the removal of hydrogen in molten aluminum, Silicon nitride degassing pipe are used to put into nitrogen or argon.

■ **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 hardness: the hardness of degassing pipe for aluminum casting is higher than steel, with better wear resistance.
2. Good shock resistance: Silicon nitride degassing tube can withstand large temperature changes without rupture.
3. Light weight: Lighter than steel, which helps to reduce the weight of the whole system.
4. Strong corrosion: Si₃N₄ Silicon Nitride tube can withstand strong acid, alkali and other corrosive media erosion.

