

General Properties

BN5000 is an excellent choice for high-temperature insulation components. BN5000 displays excellent thermal shock resistance, electrical resistivity, and chemical stability.

Applications

- Thermocouple tubes.
- Crucibles.
- Electrical insulators.
- Glass manufacturing rolls and support elements.

Physical Properties

Property	Unit	BN5000
Maximum Use Temperature	°C	850 (oxidizing) 1150 (inert)
Young's Modulus @ RT	Gpa	40 para 60 perp
Hardness (Knoop)	Kg/mm ²	16
Dielectric Strength	KV/mm	>10
Specific Heat	J/gK	0.81
Thermal Conductivity @ 25 °C	W/mk	27 para 29 perp
CTE, 800–1200°C (para)	10 ⁻⁶ k ⁻¹	1.5
CTE, 800–1200°C (perp)	10 ⁻⁶ k ⁻¹	0.9
Flexural Strength (para)	MPa @25°C	59
Flexural Strength (perp)	MPa@25°C	45
Density	g/cm ³	2
B ₂ O ₃	%	0.4
O	%	3–5
Ca	%	0.5–3
Others	%	0.03

NOTE: This data shows typical values and does not represent a specification.

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