

### General Properties

BN7000 is one of the highest purity boron nitride solids available. Its extremely low B<sub>2</sub>O<sub>3</sub> content lends BN7000 to use in the most extreme high-temperature, high-vacuum environments.

### Applications

- Vacuum furnace insulators and supports.
- Crucibles.
- Refractories.
- High-temperature electrical insulators.
- Radar.
- Setter plates.
- PVD shields.

### Physical Properties

Property	Unit	BN7000
Maximum Use Temperature	°C	850 (oxidizing) 2000 (inert)
Young's Modulus @ RT	Gpa	17 para 71 perp
Hardness (Knoop)	Kg/mm <sup>2</sup>	4
Dielectric Strength	KV/mm	79
Dielectric Constant @ RT	—	4
Specific Heat	J/gK	0.81
Thermal Conductivity @ 25 °C	W/mk	78 para 130 perp
CTE, 1200–1600°C (para)	10 <sup>-6</sup> k <sup>-1</sup>	0.9
CTE, 1200–1600°C (perp)	10 <sup>-6</sup> k <sup>-1</sup>	0.3
Flexural Strength (para)	MPa @25°C	22
Flexural Strength (perp)	MPa@25°C	21
Density	g/cm <sup>3</sup>	1.9
Open Porosity	%	19.3
B <sub>2</sub> O <sub>3</sub> max	%	0.2
O max	%	0.4
Ca max	%	0.04
Impurities	%	0.05

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

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