

BN PROPERTIES

Properties	Unit	C-BN-H	C-BN-99	C-BN-A	C-BN-B	C-BN-C	C-BN-D	C-BN-E
Composition	%	BN > 99.7	BN > 99	BN +Al+Si	BN+Zr+Al	BN+SiC	BN+ZrO2	BN+AlN
Binder	/	N/A	N/A	B2O3+Al2O3 +SiO2	B2O3 +Al2O3	B2O3	B2O3 +Al2O3	B2O3 +Al2O3
Color	/	White	White	White- Greyish	White- Greyish	White- Greyish	White- Greyish	White- Greyish
Density	g/cm ³	1.6	2.0	2.20-2.30	2.25-2.35	2.40-2.50	2.80-2.90	2.80-2.90
Electrical Resistivity (RT)	Ω-cm	≥10 ¹⁴	≥10 ¹⁴	≥10 ¹³	≥10 ¹³	≥10 ¹²	≥10 ¹²	≥10 ¹³
Maximum Use Temperature	°C							
In Air		900	900	1000	1000	1000	1000	1000
In Inert		2100	2100	1750	1800	1800	1800	1800
In Vacuum		1900	1900	1750	1800	1800	1800	1800
Bending Strength	Mpa	18	35	65	65	80	90	90
Compressive Strength	Mpa	45	85	145	145	175	220	220
Thermal Expansion (RT-1000 °C)	10 ⁻⁶ /K	1.5	1.8	2.0	2.0	2.8	3.5	2.8
Thermal Conductivity	W/mK	35	40	35	35	45	30	85
Applications	/	High Temperature Vacuum	High Temperature Vacuum	Powder Metallurgy	Powder Metallurgy	Powder Metallurgy	Metal Casting	Powder Metallurgy
Insulators for High Temperature Furnace	/		✓	✓	✓	✓	✓	✓
Crucibles for Metal Evaporation	/		✓					✓
Parts for Melting Metals or Glass	/	✓	✓	✓	✓	✓	✓	✓
High Temperature Support Parts	/				✓		✓	✓
Casting Molds for Metal or Alloy	/				✓			✓
Transport Pipe or Nozzles for Melting Metal	/		✓	✓	✓	✓	✓	✓