



Boron Nitride

Material Properties	CM-BN99	CM-BNCA	CM-BNA	CM-BNB	CM-BNC	CM-BND	CM-BNE
Main Components	BN > 99%	BN > 98.5	BN + AL + SI	BN + ZR + AL	BN + SIC	BN + ZRO2	BN + ALN
Bond Components	BN	BN	BN, AL, SI	BN, AL	BN	BN, AL	BN, AL
Density (g/cm³)	1.95 - 2.0	1.98 - 2.03	2.25 - 2.35	2.25 - 2.35	2.40 - 2.50	2.25 - 2.95	2.45 - 2.95
RT Resistivity (μΩcm)	> 10 ¹⁴	> 10 ¹⁴	> 10 ¹³	> 10 ¹³	> 10 ¹²	> 10 ¹²	> 10 ¹³
Max Temperature (°C)							
In Air	900	900	1000	1000	1000	1000	1000
In Inert Gas	2100	2100	1750	1800	1800	1800	1800
In Vacuum	2000	2000	1750	1800	1800	1800	1800
Flexural Strength (MPa)	30	30	65	65	80	90	90
Compressive Strength (MPa)	55	55	145	145	175	220	220
Coefficient of Thermal Expansion (Room Temp. ~ 1000C) (10⁻⁶/K)	1.5	1.5	2	2	2.8	3.5	2.8
Thermal Conductivity (W/mk)	35	35	30	30	40	30	85
Typical Applications	Vacuum High Temp.	Vacuum High Temp.	Powder Metal	Powder Metal	Powder Metal	Cast Metal	Powder Metal
Heat Electric Furnace Components (Heat Resistant Furnace tubes, etc)	✓	✓	✓	✓	✓	✓	✓
Metal Evaporation Crucible	✓	✓	□	□	□	□	✓
Container of Molten Metal or Glass	✓	✓	✓	✓	✓	✓	✓
Casting Mould for Special Alloy and/ or Precious Metal	✓	✓	□	✓	□	□	□
High Temperature Supporter	✓	✓	□	□	□	□	✓
Transport Tube, Nozzle for Molten Metal	✓	✓	✓	✓	✓	✓	✓