

TECHNICAL DATA SHEET

Boron Carbide Submicron Powder

Typical Chemistry

	Typical	Specification
Boron : Carbon Ratio	3.71	3.6 - 3.9
Total Carbon	21.15 %	20.0 % min.
Iron	0.06 %	0.1 % max.
Oxygen	1.51 %	3.0 % max.
Nitrogen	0.55 %	0.70 % max.

Physical Characteristics

Color:	Black
Crystal Form:	Rhombohedral
True Density:	2.52 g/cm ³
Melting Point:	2350°C
Hardness:	Knoop (100): 2800 Mohs: 9.3+

Sizing & Specific Surface Area

Sizing (Malvern 2000)	Typical	Specification
d10	0.20 µm	0.1 - 0.3 µm
d50	0.53 µm	0.4 - 0.6 µm
d90	2.10 µm	1.2 - 2.5 µm

Specific Surface Area

BET m ² /g	15-21 m ² /g
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Description:

GNP Graystar's Submicron / Sinterable Boron Carbide is milled and treated to exacting specifications to allow for optimum density in ceramic components.

Applications:

GNP Graystar's Submicron / Sinterable Boron Carbide is primarily used in ceramics where light weight is required, for example, ceramic armor. It can be used alone or blended with Submicron / Sinterable Silicon Carbide.

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