



BORON CARBIDE (B₄C)

HIGH PURITY BORON CARBIDE

Electro Abrasives, LLC. manufactures Boron Carbide powders by water classification at our state-of-the-art headquarters in Buffalo, NY USA. All chemistry and sizing is controlled to meet exact customer requirements. All Boron Carbide manufactured at Electro Abrasives, LLC meets or exceeds ANSI or FEPA standards for product quality.

ABOUT:

Boron Carbide (B₄C) is one of the hardest man made materials available. Above 1300°C it is even harder than diamond and cubic boron nitride. It has a 4-point flexural strength of 50,000-70,000 psi and a compressive strength of 414,000 psi, depending on density. Boron Carbide also has a low thermal conductivity (29-67 W/mK) and has electrical resistivity ranging from 0.1-10 ohm-cm.

APPLICATIONS:

With its strength to weight ratio and low thermal conductivity, Boron Carbide is ideal for a wide variety of applications including blasting nozzles, body armor, ceramic & metal-matrix composites, aerospace applications, refractory anti-oxidant, lapping, honing stones, nuclear technology, ultrasonic machining, and many others.

TYPICAL CHEMICAL ANALYSIS

Total Boron	77.5%
Total Carbon	21.0%
Total Iron	0.2%
Total B+C	98.5%

TYPICAL PHYSICAL PROPERTIES

Crystal Structure:	Rhombohedral
Hardness:	Knoop: 2800 / Mohs: 9.6
Melting Point:	4262°F (2350°C)
Oxidation Temperature:	932°F (500°C)
Specific Gravity:	2.52 g/cc
Particle Shape:	Blocky, Angular
Color:	Black

AVAILABLE SIZES

Mesh: -325 mesh, -400 mesh

Macro: 20, 24, 36, 46, 60, 80, 90, 100, 120, 150, 180, 220 grits

Micro: F240, 280, 320, 360, 400, 500, 600, 800, 1000, 1200 grits, 0.7 micron

Other Sizes Available Upon Request

The information contained in this data sheet has been determined through the application of accepted engineering practice and is believed to be reliable. Since the conditions of application and use of our products are beyond our control, no warranty is expressed or implied regarding accuracy of the information, the results to be obtained from use of the product, or that such use will not infringe on any patent. This information is furnished with the express condition that you will make your own tests to determine the suitability of the product for your particular use.



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GRUPO CURIMBABA

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