

¹⁰B ENRICHED BORON CARBIDE POWDER

PRODUCT CAPABILITIES

Custom Material

¹⁰Boron enriched boron carbide can be produced by a number of different methods. Boron Products, LLC has refined the process for enriched boron carbide by using enriched boric acid as a precursor material. This process allows Boron Products the flexibility to meet the individual needs of each customer in chemistry, particle size, and enrichment. Quantities from a few hundred grams to thousands of kilograms are available. ¹⁰Boron enriched boron carbide makes an excellent choice when the thermal stability of a ceramic and the high levels of thermal neutron absorption are required.

| <u>Characteristic</u> | <u>Product Capabilities</u> | | |
|------------------------|---------------------------------|-------|----------------------|
| Enrichment | As high as | 99 | at % ¹⁰ B |
| Composition B+C | As high as | 99 | wt% |
| Boron Content | | 74-77 | wt% |
| Carbon (by difference) | | 23-26 | wt% |
| Impurities | Typical Analysis ⁽¹⁾ | | |
| Boron Oxide | | <0.30 | wt% |
| Iron | | <0.10 | wt% |
| Silicon | | <0.10 | wt% |
| Chlorine plus Fluorine | | <100 | ppm |
| Calcium | | <50 | ppm |
| Manganese | | <100 | ppm |
| Sodium | | <100 | ppm |
| Titanium | | <500 | ppm |
| Aluminum | | <500 | ppm |

- Packaging: fiber drum or poly bottle, protected by vapor barrier bag.
- Certified Isotopic, Spectrographic Analysis and Total Boron and Total Carbon furnished with every lot at no charge.
- Specific B to C ratios, enrichments and particle sizes are available to meet special requirements.

Note (1): Lot analysis will vary and may show traces of other elements

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