

Technical Data Sheet

Boron carbide

Product Identification

Product name : Boron carbide
Chemical Formula : B₄C
CAS No. : 12069-32-8

Physical and Chemical Properties

| Property | Value / Description |
|-----------------------|--|
| Purity | 95.5% min |
| Physical State | Powder or yellow monoclinic crystals |
| Color | Yellow |
| Density | Approx. 2.51 g/cm ³ |
| Melting Point | 2450 - 2490 °C |
| Boiling Point | > 3500 °C |
| Solubility in Water | Insoluble |
| Electrical Properties | Semiconductor with p-type behavior; band gap ~2.09 eV |
| Stability | Stable under normal conditions; incompatible with strong oxidizers |
| Reactivity | Chemically stable; slowly oxidized at high temperatures in oxygen; resistant to acids except hot sulfuric and nitric acid mixtures |

Applications

Abrasives, grinding and polishing materials for hard substances, wear-resistant, high-strength composites, armor plating, crucibles for molten metals, semiconductor

Packing

20kg net in sealed containers

Shipping Regulations

Not subject to transport regulations

Safety Information

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.