



BB-HP – Hot Pressed Boron Carbide

MATERIAL TECHNICAL DATA SHEET

TRADE NAME: BB-HP

MATERIAL DESCRIPTION

Chemical Name & Formula: Hot Pressed Boron Carbide – B₄C

MAIN COMPONENTS

B₄C: 99% min

PHYSICAL DATA

Physical Form: Polycrystalline structure

Boiling Temperature: N.A.

Melt Temperature: 2450°C

Vapour Pressure: N.A.

Evaporation Rate: N.A.

Specific gravity: N.A.

Density: >2,49g/cm³

Water solubility: Insoluble

Colour: Dark Grey

Odour: None

MECHANICAL PROPERTIES AT ROOM TEMPERATURE

Water Absorption	%	0
Vickers Hardness	(HV 0,5)	3100
Flexural Strength	MPa	400
Compressive Strength	MPa	650
Young's Modulus	GPa	480
Maximum service temperature	°C	1700
Thermal Expansion Coefficient (RT-500°C)	10 ⁻⁶ /°C	4,92
Thermal Shock Resistance (ΔT)	°C	110

PHYSICAL AND CHEMICAL PROPERTIES

Thermal and wear resistance. High hardness.

Please, note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in any way and should only be treated as indicative values. They should be used for guidance only and for no other purpose.

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