

PRODUCT DATA SHEET

BORON CARBIDE

Chemical

	Total B	Total C	B4C
F4 – F150	77-80%	17-21%	96-98%
F180 – F400	76-79%	17-21%	95-97%
F500 – F800	75-78%	17-21%	94-97%
F1000 – F1500	74-78%	17-21%	93-97%
-10μ or -25μ	76-81%	17-21%	93-97%
-100, -200, -300 mesh	76-81%	17-21%	93-97%
-60 + 150 mesh	76-81%	17-21%	93-97%
B ₂ O ₃	max 0.5 %		
Fe ₂ O ₃	max 0.5%		

Physical

Density	>2.48g/cm ³ hot pressed and sintered
Hardness (Knoop 100g)	2900-3580
Fracture Toughness	2.9-3.7 MPa.m ^{1/2}
Young's Modulus	450-470 GPa
Electrical Conductivity (25°C)	140 S
Thermal Conductivity (25°C)	30-42 W/m.K
Thermal Expansion Coefficient	5 x 10 ⁻⁶ /°C

Appearance

Black Powder

Material can also be supplied as hot pressed and sintered pieces up to 400 x 400 mm²

Applications

Refractory, Wear Resistant and Structural Ceramics
Metal matrix Composites
Nuclear Shielding
Grinding, Polishing and Lapping
Ballistic armour

CAS Number

12069-32-8

REACH

05-2114274870-44-0000

Transport

Non Hazardous

Tariff No

28499010