

Hot-pressed Boron Carbide Sheet

Formula: B₄C

Thickness: 0.5mm

Length 1: 25mm

Length 2: 25mm

CAS Number: 12069-32-8

UOM Code: 607-596-47

SKU: 1000035377-group

Product Code: B-61-SH-000100

Material Properties for Ceramics

Chemical Resistance

Element	Value
Acids - concentrated	Fair
Acids - dilute	Good
Alkalis	Fair
Halogens	Fair
Metals	Fair

Physical Properties

Element	Value
Apparent porosity(%)	3
Density(gcm ³)	2.45-2.52

Thermal Properties

Element	Value
Melting point(C)	2450
Upper continuous use temperature(C)	600-800
Specific heat(J K ⁻¹ kg ⁻¹)	950@25°C
Thermal conductivity(W m ⁻¹ K ⁻¹)	30-90@20°C
Coefficient of thermal expansion(x10 ⁻⁶ K ⁻¹)	5.6@20-1000°C

Mechanical Properties

Element	Value
Tensile modulus(GPa)	440-470
Hardness - Knoop(kgf mm ²)	2800-3500
Hardness - Vickers(kgf mm ²)	3200
Tensile strength(MPa)	350

Pultrusions

Element	Value
Compressive strength(MPa)	1400-3400

Electrical Properties

Element	Value
Volume resistivity(Ohmcm)	0.1-10@25