

# Boron Nitride Rod

**Formula:** BN

**Diameter:** 3mm

**Length:** 100mm

**Production Method:** Hot Pressed

**CAS Number:** 10043-11-5

**UOM Code:** 690-881-80

**SKU:** 1000035140-group

**Product Code:** B-60-RD-000105

## Material Properties for Ceramics

### Chemical Resistance

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

### Electrical Properties

Element	Value
Dielectric constant	4.3
Dielectric strength( kV mm <sup>-1</sup> )	40-200
Volume resistivity( Ohmcm )	10 <sup>11</sup> -10 <sup>17</sup> @25

### Physical Properties

Element	Value
Apparent porosity( % )	Feb-15
Density( gcm <sup>-3</sup> )	1.9-2.2

### Thermal Properties

Element	Value
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Sublimation point( C )	2600-2800
Upper continuous use temperature( C )	950-2500
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	800-2000@25°C
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	15-50@20°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	1-36@20-1000°C

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Tensile modulus( GPa )	20-35
Shear strength( MPa )	Dec-25

## **Pultrusions**

<b>Element</b>	<b>Value</b>
Compressive strength( MPa )	30-120