

# Beryllium Oxide Disc

**Formula:** BeO 99.5

**Thickness:** 1mm

**Diameter:** 40mm

**CAS Number:** 1304-56-9

**UOM Code:** 753-933-71

**SKU:** 1000035802

**Product Code:** BE60-SH-000100

## Material Properties for Ceramics

### Chemical Resistance

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

### Electrical Properties

Element	Value
Dielectric constant	6.5-7.5
Dielectric strength( kV mm <sup>1</sup> )	Oct-14
Volume resistivity( Ohmcm )	>10 <sup>17</sup> @25

### Physical Properties

Element	Value
Apparent porosity( % )	0
Water absorption - saturation( % )	0.07
Density( gcm <sup>3</sup> )	2.86

### Thermal Properties

Element	Value
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Upper continuous use temperature( C )	1800-1900
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	1020-1120@25°C
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	260-300@20°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	8.4-9@20-1000°C

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Tensile modulus( GPa )	340-400
Hardness - Vickers( kgf mm <sup>-2</sup> )	1100-1300
Shear strength( MPa )	180-250

## **Pultrusions**

<b>Element</b>	<b>Value</b>
Compressive strength( MPa )	1550-1850