

# Shapal™ M soft Machinable Aluminum Nitride Sheet

**Grade:** Shapal-M soft

**Formula:** AlN / BN

**Thickness:** 5mm

**Length 1:** 25mm

**Length 2:** 25mm

**CAS Number:** 24304-00-5

**UOM Code:** 058-047-26

**SKU:** 1000008170-group

**Product Code:** AK61-SH-000150

## Material Properties for Ceramics

### Chemical Resistance

Element	Value
Acids - dilute	Fair
Alkalis	Poor

### Electrical Properties

Element	Value
Dielectric constant	7.3
Dielectric strength( kV mm <sup>-1</sup> )	40
Volume resistivity( Ohmcm )	1.8 x 10 <sup>13</sup> @25C

### Physical Properties

Element	Value
Apparent porosity( % )	0
Density( gcm <sup>-3</sup> )	2.95

### Thermal Properties

Element	Value
Upper continuous use temperature( C )	1000-1900

<b>Element</b>	<b>Value</b>
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	100@20°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	5.2@20-1000°C

## **Mechanical Properties**

<b>Element</b>	<b>Value</b>
Tensile modulus( GPa )	160
Hardness - Vickers( kgf mm <sup>-2</sup> )	560

## **Pultrusions**

<b>Element</b>	<b>Value</b>
Compressive strength( MPa )	1000