

# Aluminum Nitride Ceramic Plate CTLT1800

The thermal conductivity of CTLT1800 AlN ceramic sheet is 180W / m.k, which is 7-10 times of that of alumina ceramic. Excellent mechanical properties, good machinability, high dimensional accuracy, smooth surface, no micro cracks, bending and so on. Low dielectric constant and dielectric loss, reliable electrical insulation performance. It is nontoxic, 1800 °C resistant, oil resistant, chemical resistant, and has the same coefficient of thermal expansion as silicon, no hygroscopicity, and stable performance under high temperature and high humidity conditions. With the wide development of microelectronic equipment, high thermal conductivity AlN ceramic chip as a matrix material or packaging material has been widely valued and applied.



## Product Features

- High thermal conductivity, high voltage insulation.
- High temperature and humidity resistance.
- Good mechanical properties, high bending strength.
- Low dielectric, effective anti electronic signal interference.

## Typical Applications

- Optoelectronic communication device.
- High frequency microwave application device.
- Automotive electronics module.
- Application of Aerospace Military Electronics.
- LED / high power module.

[www.coolthermo.com](http://www.coolthermo.com)

CoolThermo - Asia

Phone: 86-133-1690-6731

Skype: 86-133-1690-6731

Email: [info@coolthermo.com](mailto:info@coolthermo.com)

Add: Room 101, No. 214, District 3, Longsheng New Village, Longsheng Community, Dalang Street, Longhua District, Shenzhen 518110

Electrically Insulating, Thermally Conductive Ceramic Material

## TYPICAL PROPERTIES OF ALUMINUM NITRIDE CTLT1800

Test Item	Unit	CTLT1800	Test Method
Colour	-	Light Cyan	Visually
Specific Gravity	g/cm <sup>3</sup>	3.33	GB/T 2413
Thermal Conductivity	W/mk	180	ISO 22007-2
Dielectric Constant	1MHz	8~10	GB/T 5594.4
Breakdown Voltage	KV/mm	≥17	GB/T 5593
Flexural Strength	MPa	≥450	GB/T5593
Warpage	%	≤2	-
Surface Roughness	μm	0.3-0.6	GB/T 6062
Water Absorption	%	0	GB/T 3299
Volume Resistivity	Ω·cm	≥10 <sup>14</sup>	GB/T 5594.5
Thermal Expansivity	10 <sup>-6</sup> °C <sup>-1</sup> (20-300°C)	2.0-3.0	GB/T5594.3
	10 <sup>-6</sup> °C <sup>-1</sup> (300-800°C)	2.0-3.0	

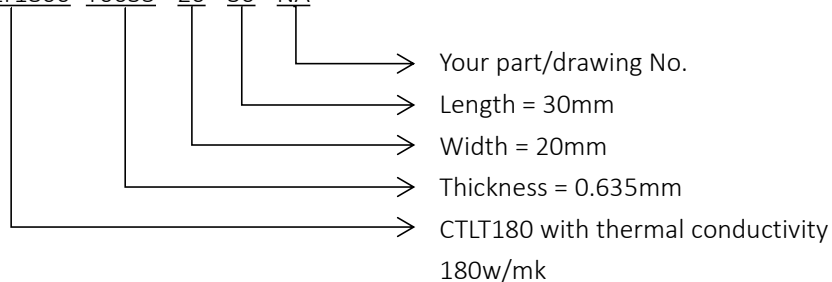
## Configurations Available:

- Thickness: 0.3MM, 0.38MM, 0.5MM, 0.635MM, 0.76MM, 0.8MM, 1.0MM, 1.2MM, 1.5MM, 2.0MM.
- Laser process into any shape you need.

## Build a Part Number

## Standard Options

CTLT1800 - T0635 - 20 - 30 - NA



Note: The material can be customized. If you can't find the material that meets your requirements in our existing materials, you can consult the sales manager whether the material you need supports customization, and we will give you a reply within 24H.

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