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Advanced Technical Ceramic Solutions

Aluminium Nitride PCAN3000

PCAN3000 is one of our enhanced grades of aluminium nitride offering all the mechanical performance of PCAN1000 with the enhanced benefits of 230 W/(m·K) thermal conductance.

Key Properties

- No toxic issues of beryllia
- Good plasma resistance
- Excellent thermal shock performance

Precision Ceramics can supply components in prototype to production quantities with pressed, isopressed, machined and ground parts.

The improved performance of aluminium nitride over alumina with over five times the thermal conductance enables high performing devices to function faster and better in smaller devices.

Typical Applications

- Heat sinks
- Heat spreaders
- Laser heatsinks power rectifiers
- Aerospace, power electronics, rectifiers and medical components supplied to ISO9001/2015

Product Data

PCAN3000		
Thermal Conductivity	W/M·K	230
Heat Radiation	(100°C)	0.93
Thermal Expansion Coefficient	10 ⁻⁶ /°C (RT-400 °C)	4-5
Insulation Resistance	Ω cm(RT)	>10 ¹³
Dielectric Voltage	kV/mm(RT)	15
Dielectric Constant	(1MHz)	8.8
Dielectric Loss	10 ⁻⁴ (1MHz)	5
Bending Strength	MPa	350
Density	g/cm ³	3.32
Yttria	%	3.4
Oxygen	%	1.7



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