

## High-Purity Aluminum Nitride

Typical Properties – 3 mole% Ytria sintering aid

|                      | <u>Units</u>            | <u>Results</u> |
|----------------------|-------------------------|----------------|
| Density              | (g/cc)                  | 3.30           |
| Color                |                         | light grey     |
| Grain Size           | (um)                    | 3-5            |
| Thermal Conductivity | (W/m-K)                 | 175-185        |
| Thermal Expansion    | (K-1)                   | 4.3x10exp-6    |
| Heat Capacity        | (J/g-K)                 | 0.736          |
| Volume Resistivity   | (Ohm-cm)                | 1.1x10exp14    |
| Dielectric Loss      | (RT, 1Mhz)              | 3.0x10exp-4    |
| Dielectric Constant  | (RT, 1Mhz)              | 9.1            |
| Bending Strength     | (MPa)                   | 360            |
| Young's Modulus      | (GPa)                   | 320            |
| Hardness             | (GPa)                   | 12             |
| Fracture Toughness   | (MPa-m <sup>1/2</sup> ) | 3              |