

| ITEM           |                                  |           | MATERIAL                | Aluminum Nitride   |
|----------------|----------------------------------|-----------|-------------------------|--------------------|
| Main Component |                                  |           |                         | AlN                |
|                | Density                          |           | g/cm³                   | 3.30               |
| MECHANICAL     | Vickers Hardness Load 500g       |           | GPa                     | 10.4               |
|                | Flexural Strength                |           | MPa                     | 310                |
|                | Compressive Strength             |           | MPa                     | –                  |
|                | Young’s Modulus                  |           | GPa                     | 320                |
|                | Fracture Toughness               |           | Mpa M <sup>1/2</sup>    | 3.0                |
| THERMAL        | Coefficient of Thermal expansion | 40 ~ 400℃ | x 10 <sup>-6</sup> / °C | 4.50               |
|                |                                  | 40 ~ 800℃ |                         | 5.30               |
|                | Thermal Conductivity (20℃)       |           | W/(m·k)                 | >170               |
|                | Specific Heater                  |           | J/(kg·K)                | 0.71X10³           |
|                | Thermal Shock Resistance (ΔT)    |           | °C                      | 400                |
| ELECTRICAL     | Dielectric Strength              |           | V/m                     | 14X10 <sup>6</sup> |
|                | Volume Resistivity               | 20℃       | Ω ·cm                   | >10 <sup>14</sup>  |
|                |                                  | 300℃      | Ω ·cm                   | >10 <sup>10</sup>  |
|                |                                  | 500℃      | Ω ·cm                   | >10 <sup>8</sup>   |
| CHEMICAL       | Nitric Acid (60%, 90℃)           |           | Weight Loss mg/cm²/day  | –                  |
|                | Sulphuric Acid (95%, 95℃)        |           |                         | –                  |
|                | Caustic Soda (30%, 80℃)          |           |                         | –                  |