

Ceramic Specifications

| Property | Unit | 60% Alumina | 75% Alumina | 90% Alumina | 96% Alumina | 99+% Alumina | Steatite | Cordierite | Zirconia |
|-------------------------------|----------------------|----------------|----------------|----------------|----------------|-----------------|----------|------------|----------|
| Density | g/cc | 3 | 3.2 | 3.4 | 3.6 | 3.8 | >2.6 | 2.3 | 6 |
| Hardness | Mohs | 7.5 | 7.5 | 7.5 | 8 | 8 | 7 | 6.5 | 8 |
| Flexural Strength | kpsi | 25 | 30 | 30-40 | 40-45 | >45 | 15 | 9 | >110 |
| Compressive Strength | kpsi | 65 | 70 | 250-300 | 280-300 | >300 | 60 | 30 | >300 |
| Factor of Expansion | 10 ⁻⁶ /°C | 7.5 | 8 | 8 | 8 | 8 | 8 | 1.3 | 10 |
| Dielectric Constant | | 6 | 6.1 | 8.1 | 9.2 | 9.7 | 5.5 | 5 | 12.3 |
| Dielectric Strength | kV/mm | 10 | 10 | 15 | 15 | 17 | >9 | 13 | 17 |
| Thermal Conductivity | W/m-k | 2.5 | 12 | 18 | 23 | 24 | 2.5 | 2.5 | 3 |
| Maximum Operating Temp. | °C | 1100 | 1150 | 1500 | 1600 | 1700 | 1200 | 1100 | 2200 |

*The data provided above is for comparative purposes only, and is not to be construed as absolute engineering data. Actual data may vary due to product configuration. This data does not represent a warranty for which we assume legal responsibility.