



ALUMINA CERAMIC MATERIAL TECHNICAL DATA

| Operating Limits | Units | Alumina Ceramics | Alumina Ceramics |
|-------------------------------|------------------------------|------------------|------------------|
| Alumina Content | wt% | ≥ 99 | ≥ 95 |
| Volume Density | G /CM ³ | 3.85 | 3.70 |
| Hardness (HRA) | HRA ≥ | 88 | 86 |
| Compressive Strength | MPa ≥ | 400 | 300 |
| Maximum Temperature | °C | 1500 | 1500 |
| Air Tight Test | | Pass | Pass |
| Thermal Shock Test | | Pass | Pass |
| Coefficient Of Heat Expansion | ×10 ⁻⁶ /°C | 8.2 | 7.5 |
| Dielectric Constant | ε _r 20°C, 1MHz | 9.2 | 9.0 |
| Dielectric Loss | tanδ×10 ⁻⁴ , 1MHz | 2 | 3 |
| Volume Resistivity | Ω·cm 20°C | 10 ¹⁴ | 10 ¹³ |
| Puncture Strength | KV/mm , DC≥ | 20 | 20 |
| Acid-resistance | mg/cm ² ≤ | 0.7 | 7.0 |
| Alkali-resistant | mg/cm ² ≤ | 0.1 | 0.2 |
| Abrasion Resistance | g/cm ² ≤ | 0.1 | 0.2 |
| Compressive Strength | M Pa ≥ | 2800 | 2500 |
| Flexural Strength | M Pa ≥ | 350 | 200 |
| Elastic Modulus | G Pa | 350 | 300 |
| Poisson's Ratio | | 0.22 | 0.20 |
| Thermal Conductivity | W/m·K(20°C) | 25 | 20 |