

Appearance

Glass-ceramic sealing glass with white color in powder form.

Chemical Composition

Lanthanum oxide (La₂O₃)

Alumina (Al₂O₃)

Silica (SiO₂)

Physical Properties

Specific Gravity	2.6 (g/cm ³)
Glass Transition Temperature (DSC)	750 ± 10 °C
Crystallization Temperature (DSC)	1000 - 1200 °C
Softening Temperature (T _d) (sintered)	> 1200 °C
Coefficient of Thermal Expansion (sintered)	~ 6 ± 1 x 10 ⁻⁶ /°C (50 - 1200 °C)
Dielectric Constant (1kHz, RT) (sintered)	6.02
Loss Tangent (1kHz, RT) (sintered)	0.0031

Recommended Firing Conditions

Seal at 1200 °C for 1 - 2 hours, then continue to operational temperatures.

Heating or cooling rate: 3 to 10 °C/min

Applications

Operational Temperature: up to 1600 °C

The typical application of GL1701 sealing glass is to seal ceramics at high temperatures. Common applications of sealing glass include solid oxide fuel cells (SOFCs), solar cells, sodium ion batteries, high-temperature sensors, and other sealing, bonding, or coating applications.

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