

Appearance

Glass-ceramic sealing glass white colored in powder form.

Chemical Composition

Barium oxide (BaO)

Silica (SiO₂)

Calcium oxide (CaO)

Alumina (Al₂O₃)

Physical Properties

Specific Gravity	3.42 (g/cm ³)
Glass Transition Temperature	725 ± 10 °C
Crystallization Temperature	1028 ± 10 °C
Softening Temperature (T _d)	762 ± 10 °C
Coefficient of Thermal Expansion	10.3 x 10 ⁻⁶ /°C (50 - 950 °C)
Interfacial Bond Strength (Shear)	30.0 MPa
Interfacial Bond Strength (Tensile)	18.7 MPa
Dielectric Constant (1kHz, RT)	9.45
Loss Tangent (1kHz, RT)	0.0226

Recommended Firing Conditions

Ramp to 850 - 925 °C and hold for 1 to 2 hours.
Heating or cooling rate: 3 to 10 °C/min

Applications

Operational Temperature: up to 1000 °C

The typical application of GL1862 sealing glass is to seal ceramics and metals 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.