

### Appearance

Compliant (viscous) sealing glass white colored in powder form.

### Chemical Composition (by weight)

Boron oxide (B <sub>2</sub> O <sub>3</sub> )	38.99 - 44.99 %
Barium oxide (BaO)	31.62 - 35.62 %
Alumina (Al <sub>2</sub> O <sub>3</sub> )	9.18 - 12.18 %
Strontium oxide (SrO)	4.68 - 6.68 %
Zinc oxide (ZnO)	3.46 - 5.46 %
Calcium oxide (CaO)	2.07 - 4.07 %

### Physical Properties

Specific Gravity	3.2 (g/cm <sup>3</sup> )
Glass Transition Temperature	553 ± 10 °C
Softening Temperature (T <sub>d</sub> )	589 ± 10 °C
Coefficient of Thermal Expansion	8.0 x 10 <sup>-6</sup> /°C (50 - 500 °C)

### Recommended Firing Conditions

Ramp to between 800 and 850 °C and hold for 2 to 4 hours.  
Heating or cooling rate: 3 to 10 °C/min

### Applications

Operational Temperature: up to 800 °C

The typical application of GL1707 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.