**Appearance**
Compliant (viscous) sealing glass white colored in powder form

**Chemical Composition (by weight)**
- Boron oxide \( (\text{B}_2\text{O}_3) \) 42.02 - 50.02%
- Barium oxide \( (\text{BaO}) \) 31.78 - 35.78%
- Alumina \( (\text{Al}_2\text{O}_3) \) 9.23 - 13.23%
- Zinc oxide \( (\text{ZnO}) \) 6.97 - 11.97%

**Physical Properties**
- Specific Gravity 3.2 (g/cm³)
- Glass Transition Temperature 550 ± 10 °C
- Softening Temperature \( (T_d) \) 577 ± 10 °C
- Coefficient of Thermal Expansion \( 7.0 \times 10^{-6} \text{ /°C} \) (50 - 500 °C)

**Recommended Firing Conditions**
Ramp to between 700°C and 750°C and hold for 2 to 4 hours.
Heating or cooling rate: 3 to 10 °C/min

**Applications**
Operational Temperature: up to 700 °C

The typical application of GL1745 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.