**Appearance**
Low temperature sealing glass with gray color in powder form.

**Chemical Composition**
- Zinc oxide (ZnO)
- Bismuth oxide (Bi₂O₃)
- Boron oxide (B₂O₃)

**Physical Properties**
- **Specific Gravity**: 4.5 (g/cm³)
- **Glass Transition Temperature**: 478 ± 10 °C (by dilatometry)
- **Softening Temperature (Tₙ)**: 505 ± 10 °C
- **Coefficient of Thermal Expansion**: 6.3 - 7.5 x 10⁻⁶ /°C (50 - 400 °C)

**Recommended Firing Conditions**
- Ramp to 560 - 590 °C and hold for 1 - 2 hours.
- Heating or cooling rate: 3 to 10 °C/min

**Applications**
- Operational Temperature: up to 400 °C

The typical application of GL1819 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.