

Appearance

Sealing glass white colored in powder form.

Chemical Composition

Phosphorus oxide (P₂O₅)

Zinc oxide (ZnO)

Tin oxide (SnO)

Alumina (Al₂O₃)

Other oxides

Physical Properties

Specific Gravity 3.2 (g/cm 3)
Glass Transition Temperature 339 \pm 10 $^{\circ}$ C
Softening Temperature (T_d) 366 \pm 10 $^{\circ}$ C

Coefficient of Thermal Expansion 9.5 x 10⁻⁶ /°C (50 - 300 °C)

Recommended Firing Conditions

Ramp to 550 - 600 °C and hold for 0.5 to 1 hour.

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

Applications

Operational Temperature: up to 500 °C

The typical application of GL1882 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.