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Appearance

Glass-ceramic sealing glass is white colored in powder form.

Chemical Composition (by weight)

Silica (SiO_2)	32.22 - 38.22 %
Strontium oxide (SrO)	24.63 - 28.63 %
Calcium oxide (CaO)	12.98 - 16.98 %
Zinc oxide (ZnO)	12.95 - 16.95 %
Aluminum oxide (Al_2O_3)	3.16 - 5.16 %
Titanium dioxide (TiO_2)	1.2 - 3.2 %
Boron oxide (B_2O_3)	0.84 - 2.84 %

Physical Properties

Specific Gravity	3.4 (g/cm^3)
Glass Transition Temperature	700 ± 10 °C
Crystallization Temperature	856 ± 10 °C
Softening Temperature (T_d)	730 ± 10 °C
Coefficient of Thermal Expansion (as-cast glass)	9.5 x 10^{-6} /°C (50 - 500 ºC)
Coefficient of Thermal Expansion (crystallized)	10.0 x 10^{-6} /°C (50 - 500 ºC)

Recommended Firing Conditions

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

Applications

Operational Temperature: up to 900 °C

The typical application of GL1350 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.