



Appearance

Solid soda-lime glass beads of various colors.

Chemical Composition (by weight)

Silica (SiO ₂)	65 - 75 %
Aluminum oxide (Al ₂ O ₃)	0 - 5 %
Calcium oxide (CaO)	6 - 15 %
Magnesium oxide (MgO)	1 - 5 %
Sodium oxide (Na ₂ O)	10 - 20 %
Iron oxide (Fe ₂ O ₃)	< 0.8 %

Physical Properties

Specific Gravity	2.5 (g/cm ³)
Bulk Density of Dry Beads	1.3 g/cm ³ (81 lb/ft ³)
pH in water @ 25 °C	7.8
Softening Temperature (T _s)	650 ± 10 °C
Thermal Conductivity	0.9 - 1.3 W/m·K
Coefficient of Thermal Expansion	90 x 10 ⁻⁷ /°C (30 - 300 °C)
Compression Strength	29 kg/mm ² (41,200 psi)
Vickers Hardness	550 kg/mm ² (782,000 psi)
Mohs Hardness	6-7
Index of Refraction	1.51 (n _D)

Applications

Typical applications of GL0191 glass spheres include: spacer for gauge control, thermal expansion reduction filler for adhesives and polymers.

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