



MO SCI, LLC ☒ mo-sci@mo-sci.com ☒ 573-364-2338

Appearance

Solid soda-lime glass microspheres that appear colorless.

Chemical Composition (by weight)

Silica (SiO ₂)	69 - 72 %
Aluminum oxide (Al ₂ O ₃)	1 - 4 %
Calcium oxide (CaO)	9 - 12 %
Magnesium oxide (MgO)	1 - 3 %
Sodium oxide (Na ₂ O)	13 - 17 %
Iron oxide (Fe ₂ O ₃)	< 0.3 %

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
Coefficient of Thermal Expansion	90 ± 10 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)

Size Ranges Available

Size (mm)

- 0.6 - 1.0
- 0.8 - 1.2
- 1.0 - 1.5
- 1.5 - 2.0
- 1.7 - 2.5
- 2.5 - 3.5

Applications

Typical applications of GL0191 glass microspheres include grinding, mixing media, filter aids, filter media, and thermal expansion reduction filler for adhesives and polymers.

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