



### Appearance

13-93 bioactive glass with white color in powder form.

### Chemical Composition (by weight)

Silica (SiO <sub>2</sub> )	50 - 56 %
Calcium oxide (CaO)	17 - 23 %
Phosphorous pentoxide (P <sub>2</sub> O <sub>5</sub> )	2 – 6 %
Sodium oxide (Na <sub>2</sub> O)	4 – 8 %
Potassium oxide (K <sub>2</sub> O)	10 - 14 %
Magnesium oxide (MgO)	3 - 7 %

### Heavy Metals (by ICP) (ASTM F1538 Spec)

As	< 3 ppm
Cd	< 5 ppm
Hg	< 5 ppm
Pb	< 30 ppm
Total (as lead)	< 50 ppm

### Physical Properties

Specific Gravity	2.66 (g/cm <sup>3</sup> )
Softening Temperature (T <sub>d</sub> )	625 ± 10 °C
Melting Temperature	1300 ± 10 °C
Coefficient of Thermal Expansion	10.6 x 10 <sup>-6</sup> /°C (30 - 300 °C)
Index of Refraction	1.55 (n <sub>D</sub> )

### Applications

Typical applications of GL0811 include: bone grafting biomaterials, repair of periodontal defects, cranial and maxillofacial repair, wound care, blood loss control, stimulation of vascular regeneration, nerve repair.