

Appearance

45S5 bioactive glass is white in color and is in powder form.

Chemical Composition (by weight)

Silica (SiO ₂)	43 - 47 %
Calcium oxide (CaO)	22.5 - 26.5 %
Phosphorous pentoxide (P ₂ O ₅)	5 - 7 %
Sodium oxide (Na ₂ O)	22.5 - 26.5 %

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	2.7 (g/cm ³)
Softening Temperature (T _s)	550 ± 10 °C
Melting Temperature	1300 ± 10 °C
Coefficient of Thermal Expansion	16 x 10 ⁻⁶ /°C (30 - 300 °C)
Index of Refraction	1.55 (n _D)

Applications

Typical applications of GL0160 include: bone grafting biomaterials, repair of periodontal defects, cranial and maxillofacial repair, wound care, blood loss control, stimulation of vascular regeneration, and nerve repair.