

Appearance

58S Bioactive glass made by sol-gel processing that is white in powder form.

Chemical Composition (by weight)

| Silica (SiO ₂) | 58 % |
|---|------|
| Calcium oxide (CaO) | 33 % |
| Phosphorus pentoxide (P ₂ O ₅) | 9 % |

Physical Properties

| Specific Gravity | 3.29 (g/cm ³) |
|---|---------------------------|
| Softening Temperature (T _d) | 886 ± 10 °C |

Coefficient of Thermal Expansion $12.2 \pm 1 \times 10^{-6}$ /°C (300 - 700 °C)

Specific Surface Area 170 m²/g

Applications

Typical applications of GL1894 include bone grafting biomaterials, repair of periodontal defects, cranial and maxillofacial repair, wound care, blood loss control, stimulation of vascular regeneration, and nerve repair. Sol-gel processing allows for high purity, high chemical homogeneity, and highly uniform nanostructures produced at low temperatures.

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