

Glass Beads for 3D Printer

We developed minute glass beads with a refractive index that can be matched with a resin for 3D printing. By adding glass beads, the mold resin can achieve the properties such as heat resistance, mechanical strength, and transparency.

Features

- **Translucency**
Translucent printed models are obtained with the use of refractive-index-matched glass beads. The degree of translucency can also be adjusted by changing the proportion of this product with other additives.
- **Heat resistance and strength**
The heat resistance and strength of printed models increase with the use of this product.
- **Uniform dispersion**
Uniform dispersion in resins is achieved by optimizing the particle size of beads.

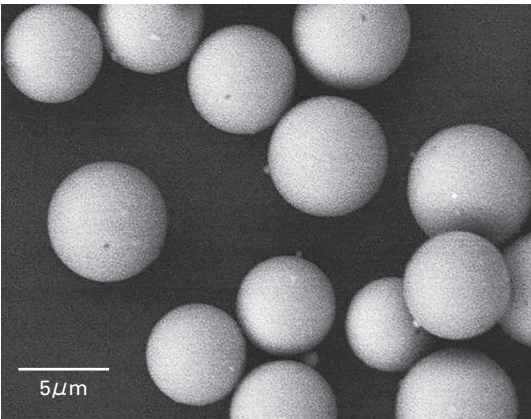
Properties

Properties/Glass Code			AM-51/015
Refractive index (n _d)			1.51
Density		× 10 ³ kg/m ³	2.38
Particle size	D ₅₀	μm	5.5
	D ₉₉	μm	Up to 13.0

Comparison with Conventional Products



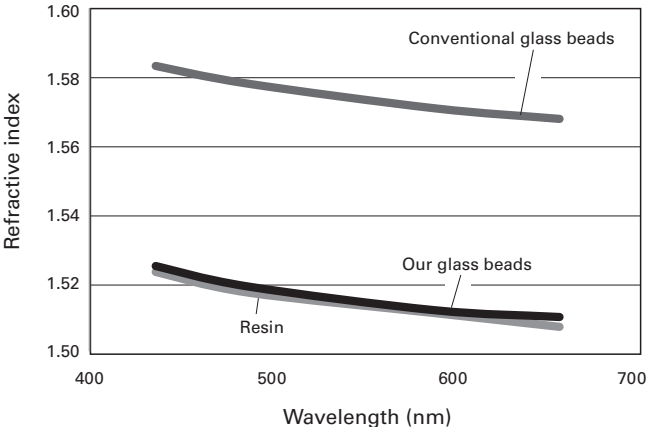
Appearance of 0.5mm-thick resin plates containing 30vol% glass beads



SEM image

Applications

- Temporary teeth
- Connectors
- Jewelry
- Simulation models for automobiles and aircraft, etc.



Refractive indices of materials used for resin plates shown on the left