

Precious metal crucibles

For crystal growth

Product information

Engelhard is at the forefront of precious metal technology in the manufacturing of crucibles for specialized optical and electronic applications. In fact, we produced the very first iridium crucibles for Bell Labs. Our precious metal crucibles are used to produce single crystals for specialty optics and electronics, as well as everything from jewelry to the latest advances in aerospace and laser applications. Engelhard experience, combined with highly advanced manufacturing technology, means your crucible can be designed to meet your production requirements. We offer the largest precious metal crucibles and the widest range of sizes in the industry.



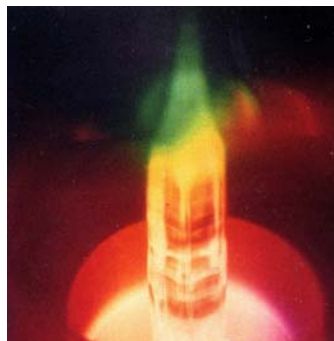
Crucibles and seed holders

Full line of complementary products

Engelhard also offers a full line of complementary products including precious metal lids, washers and seed holders for crystal growth.

Engelhard purity

Precious metals are the preferred crucible material in many applications, due to their exceptional corrosion resistance, high temperature strength



Crystal growth

and high melting point. The purity level of the material used in the manufacture of crucibles may have a direct effect on the clarity and coloration of the crystal grown. Through years of experience, Engelhard has developed high purity materials with controlled levels of impurities for crystal growing applications. This process involves identifying those elements associated with crystal discoloration and developing proprietary techniques for their removal. The result is Engelhard Controlled Purity. We produce grades of precious metal specifically designed for the stringent requirements of growing crystals.

Technical staff on call worldwide

As a worldwide manufacturer, Engelhard can offer you technical advice worldwide. We can provide you with technical support in design and in your selection of the appropriate grade of material for your application.

Full value credit

As the crucible loses weight due to oxidation, or heat damage becomes too excessive, Engelhard can purchase your crucible for reclamation and recycling. Engelhard offers the full cycle of refining services for used crucibles. These include Engelhard's worldwide 24-hour dealing network, precious metal financing services, plus complete and exacting collection, sampling and assay services.

About Engelhard

Engelhard Corporation is a surface and materials science company that develops technologies to improve customers' products and processes. A Fortune 500 company, Engelhard is a world-leading provider of technologies for environmental, process, appearance and performance applications. For more information, call us or visit us on the web at www.engelhard.com/crystalgrowth.

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Crucible specifications

Materials	Iridium, platinum, gold, rhenium, and alloys
Dimensions	Diameters and heights from less than 2 inches to largest available in the industry
Geometry	Uniform wall and bottom thickness. Heavier bottom thickness available.
Finish	Matte, Polished
Process	Depending upon materials and specifications required, crucibles may be welded, spun, produced by Engelhard's El-Form™ process, or a combination, depending upon the desired results.

Complementary products

Materials	Iridium, platinum, gold, rhenium, and alloys
Lids, Washers	Can minimize heat loss and protect the crystal from atmospheric contaminants.
Seed holders	Used to start and pull crystals.
Tubes	Used to direct oxygen to the crystal base.
Welding rods	Can be used to repair cracks and fissures that may occur during normal use.