

# Vacuum coating materials

For sputtering and evaporation processes

## Product information

Platinum, palladium, iridium, gold, and rhodium metals and their alloys are available in a wide variety of coating sources such as targets, slugs and starter sources, made to standard and custom specifications and tolerances. By combining technical expertise and years of industry experience, Engelhard can work with you for the best and most efficient solution to your manufacturing needs.

Our solutions offer:

- Enhanced design
- Superior bonding
- Standard fabrications
- Custom fabrications
- High purity
- Advanced analysis
- Reclamation and refining



*Evaporation pellets and targets*

### Enhanced design

Engelhard's enhanced design means that you can achieve more efficient utilization of your precious metals. For use in magnetically focused



*Delta enhanced target*

systems, this design places more metal along the electron trap path. This unique design can reduce your precious metal inventory while greatly increasing your yield percentage. This technique has been successfully proven in many designs and geometries including circles, squares, rectangles, and deltas.

### Superior bonding

Engelhard's proprietary bonding process produces superior bonding integrity over long periods, even at elevated temperatures. Ultrasonically tested, our bonded targets can be relied on for the high integrity that's necessary for high power sputtering.

### Standard and custom fabrications

We offer standard sputtering targets and will also fabricate targets to your configurations and specifications. We can provide inset, planer and delta targets. All sputtering materials are available in a variety of high purity evaporation slugs, disks, and starter sources.

### High purity with advanced analysis

Engelhard can provide the highest purity precious metals for all of your coating needs. We recognize that the level of specific impurities can significantly influence your thin film performance. As a global leader in the precious metals industry, Engelhard uses its proprietary processes to control for specific impurities as well as provide the highest purity materials. Using advanced analysis, Engelhard designs sputtering materials to meet the required specifications for the most demanding applications.

### Reclamation and refining

Engelhard provides the full circle of refining services for used precious metal targets. Using industry leading technology and years of experience, we can maximize the recovery of your precious metal. Recovered precious metal can be purchased by Engelhard or can be credited to your metal account for future use in new targets.

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## 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 about Engelhard coating materials, call us or visit us on the web at [www.engelhard.com/vacuumcoating](http://www.engelhard.com/vacuumcoating).



Standard targets			
Element	Purity	Dimensions	Geometry
<b>Platinum</b>	99.95%	Max dia: 16"	Circular
	99.99%	Max thick: 0.250"	Rectangular
		Max wgt: 450 t.o.	Deltas
		Min thick: 1mm	Bonding is standard
<b>Palladium</b>	99.95%	Max dia: 16"	Circular
		Max thick: 0.250"	Rectangular
		Max wgt: 200 t.o.	Deltas
		Min thick: 1mm	Bonding is standard
<b>Rhodium</b>	99.8%	Max dia: 8"	Circular
		Max thick: 0.250"	Rectangular
		Max wgt: 200 t.o.	
		Min thick: 0.0625"	
<b>Ruthenium</b>	99.9%	Max dia: 12"	Circular
		Max thick: 0.250"	Rectangular
		Max wgt: 182 t.o.	
		Min thick: 0.100"	
<b>Iridium</b>	99.8%	Max dia: 10"	Circular
	99.9%	Max thick: 0.250"	Rectangular
		Max wgt: 200 t.o.	
		Min thick: 0.0625"	
<b>Gold</b>	99.95%	Max dia: 16"	Circular
	99.99%	Max thick: 0.250"	Rectangular
	99.999%	Max wgt: 400 t.o.	Deltas
		Min thick: 1mm	Bonding is standard

*This table contains a range of commonly supplied sputtering targets. Contact us for special dimensions and custom geometries.*

**ENGELHARD**

Change the nature of things.

Engelhard Sales Limited  
Valley Road, Cinderford  
Gloucestershire, GL14 2PB  
England  
Telephone: 1594-827-744  
Fax: 1594-826-013

Engelhard Platinum  
Sensors S.r.l.  
Via Lago dei Tartari, 23  
00012 Guidonia  
Rome, Italy  
Tel.: 39-0774-377-012  
Fax: 39-0774-377-015

Engelhard Corporation  
46820 Fremont Blvd.  
Fremont, CA 94538  
USA  
Telephone: 510 490-2150  
Fax: 510 252-1871

### Engelhard Corporation

700 Blair Road  
Carteret, NJ 07008  
USA  
Telephone: 732 205-5700  
Fax: 732 634-7696  
Web site: [www.engelhard.com](http://www.engelhard.com)