Platinum

Evaporation Materials

Kurt J. Lesker® Company

MATERIALS™ DIVISION

Applications

- Electron beam and thermal evaporation
- Conductive contact layer in electronic device applications including; sensors, and memory storage

Features

- High purity
- Available in pellet and wire
- Custom quantity packaging
- Prices locked in at order confirmation
- Large Inventory

Manufacturing Process

- Refining
  - Material purification
- Melting
  - Assay is run and certificate of analysis is completed
- Fabrication
  - Extrusion of rod and wire
  - Precision cut to shape
- Cleaning and Final Packaging
  - Cleaned for use in vacuum
  - Protection from environmental contaminants
  - Tamper-proof packaging

Options

- Pellets
  - 1/8" Diameter x 1/8" Length
  - 1/4" Diameter x 1/4" Length
- Wire
  - 0.020" Diameter
- Starter sources for electron beam evaporation
- Custom sizes, lengths, and quantities
- Full reclaim service

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Specifications

Typical Analysis - 99.99% (4N) Purity

Metallic Impurities, ppm by weight

Al	Cr	Fe	Mo	Ni	Si	Zr
<20	<20	<20	<20	<20	<20	<20

Theoretical Density	21.45 g/cm^3
Thermal Conductivity (26.85°C)	72 W/m·K
Melting Point	1772°C
Vapor Pressure @ Given Temperature	1747°C at 10^{-4} Torr
Appearance	Metallic Gray

Compatible Evaporation Sources (including but not limited to):

Thermal Evaporation: Thick gauge tungsten boats. Note that platinum alloys with all refractory metals at temperatures required for evaporation. Only a small fraction of Pt is evaporated before the boat alloys and breaks. Electron beam evaporation is preferred.

Electron Beam Evaporation: Graphite or Fabmate® crucible liner

Precious Metals Reclaim Service

Spent sputtering targets and similar precious metal scrap can be reclaimed and the resulting credit will be applied towards a customer's account per the terms outlined below. Your KJLC customer service representative can provide an RA# to ship the precious metal reclaim to KJLC headquarters in Pittsburgh, PA. KJLC policy requires a product safety form be included with the shipment to ensure safe handling.

Pure Platinum Reclaim

(Pure spent sputtering targets and pure slugs, pellets, etc.)

Reclaim of this type will be credited to the customer's account within 48 hours of receipt of material. The credit is calculated using the Engelhard Industrial Bullion price on the day of receipt.

Amount (Troy ounces)	Percentage Yield	Refining Fee
<4 toz	94%	$20/toz
4-20 toz	95%	$20/toz
>20 toz	97%	$20/toz

Middle-Grade Platinum Reclaim

(Crucibles and E-beam crucible liners containing melted slugs of pure metal, De-bonded sputtering targets containing trace amounts of indium or other solder.)

Reclaim of this type will be credited to the customer's account within 1 week of receipt of material. The credit is calculated using the Engelhard Industrial Bullion price on the day the credit is processed.

Amount (Troy ounces)	Percentage Yield	Refining Fee
<4 toz	93%	$25/toz
4-20 toz	94%	$20/toz
>20 toz	96%	$20/toz

Low-Grade Platinum Reclaim

(Alloy targets or slugs, evaporation boats coated with gold, crucibles and crucible liners that alloy or react with the metal, chamber and shield scrapings, etc.)

Reclaim of this type will be credited to the customer's account within 6 weeks of receipt of material. The credit is calculated using the Engelhard Industrial Bullion price on the day the credit is processed.

Amount (Troy ounces)	Percentage Yield	Refining Fee
<10 toz	70%	$25/toz
10-20 toz	80%	$25/toz
>20 toz	85%	$25/toz

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