



Gold Plating Services

Technical Data Sheet

24K Pure ECO Gold Plating Solution

Gold Plating Services' *ECO 24K Pure Gold Plating Solution* operates at a high cathode efficiency producing a pure gold deposit which meets ASTM B488. This cyanide free, sulfite gold complex solution produces a lustrous to bright gold deposit with relatively low internal stress. This type of high purity, (99.99% gold purity), deposit is typically used in the medical, semi-conductor, electronic, and PWB industries where soft, high purity gold is required. Note: Due to the grain structure of this type of gold deposit the reflective qualities of the surface will become noticeably "matt" with increased thickness.

Gold Content- 0.25 – 1.5 Troy oz. per gallon, as per customer specification
Purity - 99.99+ percent gold minimum (24 karat)
Hardness Knoop hardness < 90 (typically 55-60)

Operating Conditions

	<u>Range</u>
Temperature	45° - 60° C (115° – 140° F)
Anode to Cathode Ratio	1:1 (or higher)
Specific Gravity	9 – 28 Be
PH (electrometric)	8.5 – 10.5 (optimum 9.5)
Time to deposit 0.0001" (2.5 micron)	13 minutes at 3 ASF (depending on conditions)
Efficiency	95 - 120-mg/ampere minute
Filtration	Continuous
Hardness	60 – 80 Knoop
Current Density	3 amperes per square foot, (20 ma/in ²)
Anode	Platinized titanium (preferred), or Type 316 stainless steel
Agitation	Moderate relative Cathode to solution movement

NOTES:

To insure consistency of deposit, the following operating conditions should be controlled;
METAL CONTENT, maintain within 20% of specified operating conditions.
TEMPERATURE, maintain within 5% of specified operating conditions.
PH, maintain within 5% of specified operating conditions.
CURRENT DENSITY, Maintain within 5% operating conditions.