



## Technical Data Sheet

# 24K Brush Gold Solution / Pen Gold

Gold Plating Services' **24K Brush Gold / Pen Gold Plating Solution** is a cobalt-hardened, acid gold, electroplating solution that will yield a relatively low stress, fine-grained deposit with a hardness range of 130-200 Knoop. This solution is ideally suited for printed circuit board fingers, contacts, fine select applications, as well as decorative deposits.

The purity and hardness of the final electrodeposited gold will be equivalent to Type I and II, Grade C specifications as indicated in MIL-G-45204C as follows:

<b>Gold Content -</b>	Varies between solution type and volume
<b>Purity -</b>	99.7 percent gold minimum (24 karat)
<b>Hardness -</b>	Knoop hardness 130-200
<b>Density of Plate -</b>	12.45 mg/in <sup>2</sup> /μm thick
<b>Theoretical Coverage -</b>	1 gram of fine gold has a coverage of about 320 in <sup>2</sup> with the gold plated to an average decorative thickness.

Note: This coverage is based on the assumption that all gold in the solution will be deposited. In actual practice this is not likely since there is normally solution loss during use.

## Operating Conditions

<b>Temperature -</b>	Room
<b>Voltage (Pen) -</b>	3 - 4 Volts
<b>Voltage (Brush) -</b>	2.5 - 3 Volts Caution: Start voltage low and work up; voltage varies based on item size and speed of movement.
<b>Application tip (Pen) -</b>	Felt tip - fine or medium
<b>Application sleeve (Brush) -</b>	Cotton sleeve Note: Ensure sleeves and tips are thoroughly soaked prior to use.
<b>Anode (Brush) -</b>	Type 316 stainless steel or platinum plated titanium
<b>Agitation -</b>	Continuous solution movement over surface
<b>Shelf Life -</b>	If stored at room temperature, properly sealed solution has a shelf life of about 2 years.

Note: A dark or dull gold deposit referred to as "burning" is caused by too high of a voltage or by moving the sleeve or tip too slowly while plating. It can be easily polished off with a soft cloth or a paste made of baking soda and water.

### *Gold Plating Services*

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