



JEWELRY PLATING

GFX1

ACID GOLD STRIKE SOLUTION FOR BATH PLATING 1 G/L (READY-TO-USE)

GENERAL INFORMATION

GFX1 is a strongly acidic gold strike plating solution designed for technical applications. The acidic nature of the electrolyte allows it to deposit onto substrates that traditionally create adhesion problems such as bronze substrates. It can also be used as a pretreatment to activate some stainless steel alloys by breaking down the natural oxide layer due to the aggressive chemical make-up. The use of this gold strike plating solution requires subsequent steps to bring a substrate to an acceptable finish.

Product form

Metal concentration	1 g/l (Au)
Product's pH	Acidic
Solution form	Liquid
Solution form	Ready-to-use
Plating solution color	Pink
Storage time	2 years
Volume	1 liter

Deposit data

Purity (%)	99.7
Solution appearance	Shiny
Hardness [HV 0.01]	170-190
Density [g/cm ³]	19.1
Plating solution color	Yellow Gold
Thickness range [μm]	0,2



Operating data	RANGE	OPTIMAL
Deposition speed	0.1	0.1
pH	1.0 - 1.5	1.2
Voltage [V]	2.5 - 3.5	3.0
Current density [A/dm ²]	1 - 5	3.0
Working temperature [°C]	40 - 50	45
Exposure time (sec)	60 - 120	90.0
Cathode efficiency [mg/Amin]	16	16.0
Anode-cathode ratio	2:1	2:1
Anode type	Platinized titanium	
Agitation	Moderate	

Metal concentration	METAL	RANGE (g/l)	OPTIMAL (g/l)
	Gold	0.5 - 2.0	1.0
	Cobalt	0.25 - 1.0	0.5

Color coordinates

L*	82.0
a*	8.1
b*	33.6
c*	34.6

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PREPARATION

GFX1 is a ready-to-use plating bath at the concentration of 1 g/l of gold. No preparation is required while filling the working tank.

EQUIPMENT

Working vessel materials: Pyrex glass / PVC / polypropylene
Power supply: DC current rectifier with low residual AC (<5%)
Heating element
Anode type: Platinized titanium [1.5-2.5 µm] or stainless steel
For larger bath volumes:
Magnetic driven filter pumps with 5-15 µm cartridge (before use, boil and wash the cartridges with demineralized water for 3 hours to prevent organic contamination)
Amp/min counter

PRE TREATMENT

GFX1 has been designed to deposit directly onto substrates that traditionally create adhesion problems such as bronze, nickel, stainless steel, and alloys containing tin, zinc, and iron.

POST TREATMENT

Electrolyte should be removed from the surface as quick as possible. Rinse off the bath rests in a recovery rinse (still rinse). Rinse the parts in circulating deionized water and dry.

WATER PURITY

To prevent contamination of the bath both during its preparation and any subsequent replenishing operations, use demineralized water with a conductivity of less than 3 µS/cm (containing no traces of organic compounds, Chlorine, Silicon, or Boron).

BATH MAINTENANCE

GFX1 was developed for small plating installations therefore replenishment has not been studied. It is to be used until exhausted.

SAFETY INFORMATION

Being an acidic solution, the electrolyte is an irritant to the skin, eyes and mucous membranes. Caution should be exercised when using the product, avoiding contact with the eyes and skin. Use gloves and safety goggles. Keep away from acid based chemicals. For further information please refer to the relative MSDS.

DISCLAIMER

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**RELATED PRODUCTS LIST****Prodotto Complementari**

AUS683	Gold (I) potassium cyanide 68.3%
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