



Future Coat Technology

FCT IMITATION GOLD

Since the gold price keeps increasing, as well as the popularity of gold electroplating all around the world, now, not only the rose gold, but also the Chinese gold, German gold and light gold color have become the dominant color in every market. The demand for a common gold imitation which can cover full range of color has become thirsty by the explosive growth of the market.

Feature

1. In common, to get all kinds of gold color, it requires to adjust the temperature of the solution, pH value and cathode current density.
2. The layer is vivid and shining; without color difference and not easy to discolor; the general gold imitation is not comparable to it.
3. Plating under the same phase current, handling simple and easier than the traditional method which requires three phases different current and plating time.
4. Replenishment for the bath is controlled by the analysis, much experience in production is not necessary.
5. Get the similar effect with the real gold in a low cost, do not require any water based plating brightener.
6. The FCT imitation gold salt does not contain compound of cyanide, therefore, the transportation and preservation are not under supervision.
7. Cuprous cyanide and sodium cyanide replenished by the customers help to reduce the production cost.

Quantity for make –up

FCT gold imitations make –up salt	22 g/l
FCT gold imitation replenish salt	4-8 g/l
FCT cuprous salt	26 g/l
Sodium cyanide	63-65 g/l

Sequence

1. Clean the tank thoroughly. Fill in with water to 50% of the tank volume
2. Add Sodium cyanide and stirring to nearly dissolution
3. Work the FCT gold imitation make-up salt into paste by purified water then add to the solution. Stir evenly to dissolution.
4. Add quality cuprous salt, work into paste and add to the solution of sodium cyanide. Stir evenly to dissolution.
5. Stirring the solution for half an hour.
6. Work the FCT gold imitation replenish salt into paste by adding purified water and strong agitation for half an hour until it becomes slight muddy.
7. Keep the plating solution sitting for at least 18 hours until it becomes clear and slight deposit at the bottom; the pH should be adjusted in the range of 10-14 as the corresponding color process requires.

Attention

1. Do not use filter or carbon powder in any condition during make-up process.
2. It is normal that the paste or deposit occur when the FCT salt dissolves normally
3. Do not remove deposits at the bottom of the tank in any condition; it is necessary for the normal plating process.

Condition

	Range	Standard
Concentration	10-13Be	10
Temperature °c	26-55	36
pH	10-14	13
Anode current density	1-10A/dm ²	2A/dm ²
Time	20-70sec	40 sec
Cathode status	oscillate	oscillate
Filtration	none	

Color range

	Red	standard	yellow
Temperature °c	above 50 ⁰ c	36 ⁰ c	below 30 ⁰ c
Current density (A/dm)	below 0.5 A	1-2A	4 A
PH	8-10	13	14

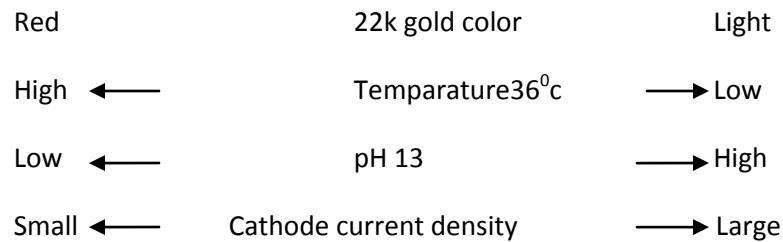
To increase pH value: Sodium hydroxide or Potassium hydroxide

To decrease FCT gold imitation acid adjustment salt

By adjusting the temperature, current density and pH can acquire kinds of good color.

Layer color

From rose red gold to light gold (12k):



Usually, to proceed the production as the samples can through adjusting the above three parameters, especially the temperature and pH value.

Problem shooting

Problem	Reason	Solution
Color uneven	The dissolution of the gold imitation salt is not completely	Increase temperature, stirring and dissolve it by low current
Too Red	High temperature and low pH value	Descend the temperature .increase the PH value to 11,adopt sodium cyanide or potassium cyanide
Light color	Low concentration time for plating is short .Excess sodium cyanide	Replenish gold imitation salt. Extend the time for plating . Analyze and add the cuprous cyanide and FCT salt in proportion
Uneven luster	Insufficient luster too much impurity in the solution.	Clear up the white deposit at the bottom of solution when it is cool

Milky Haze in the low current area	Lack of sodium cyanide. Too high concentration	Replenish sodium cyanide. Dilute 10-20% plating solution.
Black	Low concentration. Time is not sufficient. Too high concentration for sodium carbonate. Excess sodium cyanide.	Baume ratio 10. The time must over 30 seconds. Temperature 40-45 ⁰ c. Remove sodium carbonate after cooling, Analyze and add cuprous salt and FCT salt in proportion.