GT4PINK

mod. 3b - rev. 000, 27/02/2006

Technical chart

Last revision 04/09/2015

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READY TO USE THICK PLATING BATH 4g/I GOLD PINK COLOR

Colour **Pink**

L: 83,9 c: 17,6 YI: 36,7 a:9,6 b: 14,7

Product description

The plating solution GT4PINK is a slightly acidic electrolytic system which produces bright pink-yellowish micron gold deposits characterized of a good distribution of thickness, good hardness and of good ductility indicated for decorative purposes. This system is Cadmium free as well as other heavy metals free. The most interesting thing about this product is the total absence of free cyanide in its formula which make this solution ideal for everyone, without the needs to have special licences for the cyanide use. The only cyanide involved with the process is the 68.3% gold potassium cyanide salt.

Recommended applications

This process is particularly indicated for decorative applications in the goldsmith and custum jewelery sector or for any other process which requires a final flash color deposition in pink 18 kt gold and with a certain thickness.

Deposit data	
Purity [%]	18-20 kt
Density [g/cm^3]	15.5-17.0
Hardness [HV 0.01]	400-450
Thickness [µm]	0,1-5
Appearance	Shiny

Operating data

	Range	Optimum	
Voltage [V]	1 - 3	1,8	
Current density [A/dm ²]	0,3 - 0,8	0,5	
Operating temperature [°C]	40 - 50	45	
Treatment time [s]	1 mic in 3-4 min	6-8 mins for 2 mic	
рН	5,0	4,8 - 5,2	
Anodes	Pt or Ti/Pt	Pt or Ti/Pt	
Agitation	Moderate	Moderate	
Anode/Catode surface ratio	4:1	4:1	
Cathode efficiency [mg/Amin"]	50 - 55	50 - 55	
Solution filtering	Suggested	Suggested	
Gold content in the product after preparation	3,5 - 4,5	4	
Copper content in the product after preparation	1,8 - 2,2	2,0	

Via del Lavoro, 1 - 36050 Bressanvido (Vicenza) Italy - Tel. +39 0444 467911 - Fax +39 0444 660677

www.legorgroup.com

Customer Service: infotech@legor.com

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Colour **Pink**

L: 83,9 a: 9,6 b: 14,7 c: 17,6 YI: 36,7

Additional informations

Packaging The product comes in a one liter bottle with sealed cap covered with a protective sleeve film. IMPORTANT: When you receive the product make sure that the cap is intact.

Demineralized water To prevent contamination of the bath, both during its preparation and in any subsequent topping up operations, use demineralized water with a conductivity of less than 3 µS/cm (containing no traces of any organic compounds, Silicon or Boron). To achieve maximum deposit quality we recommend using our high-grade purity WATER.

Agitation of the solution and/or pieces It is better to guarantee a slight agitation of the solution while for the pieces agitation is not mandatory.

Temperature

Best performances are obtained at 45°C working temperature. In this sense it is very important that the solution stays as closer as possible to this temperature value.

pH corrections To higher the pH value add potassium hydroxide 20% solution or K18SCB conducting salts as much as necessary to higher the pH. To lower the pH value use, on the contrary, K18SCA conducting salts.

Density of solution corrections

To correct the plating solution density, and in the specific case to higher it, add the conducting salts K18SCA and K18SCB in the ratio 1 part of K18SCA per every 4 part of K18SCB. Keep in mind that 15 g of this salt mixture higher the density of the plating solution of 1°Bé. For this reason 15 g will be made of 3 g of K18SCA + 12 g of K18SCB.

Consumptions

The replenisher units contain the bonding metals, the builders, the additives and the brightners necessary for the maintenace of the plating solution inside optimum parameters.

For what concern the consumptions please keep in mind the following guideline: 50 g of gold potassium cyanide 68.3% need to be restored every 900 Amin together with 1 liter of K18R compelte replenisher.

It might be necessary for the plating solution maintenance also:

K18BR brghtner, which will be useful in case the deposit is less bright or in case of cloudy effects at the low current density areas; .

- K18M wetting agent which improves the wettability of item surfaces
- K18A additive to use in case of cloudy effects not solved after the brightner addition,
- K18SCA and K18SCB, acidic and alkaline conducting salts respectively to use in order to higher the density of the plating solution in case the latter is too much low (see at the previous paragraph).

Pay attention! The addition of these maintenance replenishers has to be done with care and after an accurate bath analysis on the basis of the technical indication given by the supplier only.

Safety Information

Being an acidic solution, GT4PINK is irritant to 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. For further information please refer to the relative safety datasheets.

Bath plating solutions	Code
1 liter ready-to-use acidic 18 kt pink gold micron process (4 g/l)	GT4PINK
Replenisher for GT4PINK acidic 18 kt pink gold micron process (1 liter bottle)	K18R
Brightener for GT4PINK acidic 18 kt pink gold micron process (1 liter bottle)	K18BR
Wetting agent for GT4PINK acidic 18 kt pink gold micron process (1 liter bottle)	K18M
Additive for GT4PINK acidic 18 kt pink gold micron process (1 liter bottle)	K18A
Acidic conducting salts for GT4PINK acidic 18 kt pink gold micron process (1 liter bottle)	K18SCA
Alkaline conducting salts for GT4PINK acidic 18 kt pink gold micron process (1 liter bottle)	K18SCB



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