

Gold Plating Bath JE253

Description:

The gold plating bath JE253 is a mildly acidic hard gold electrolyte that deposits yellow, uniformly shiny hard gold coatings. It is suitable for technical and decorative applications, as the deposited layers have high corrosion and abrasion resistance. Under optimal conditions, highly glossy and adhesive gold layers up to a maximum thickness of 5 µm can be achieved. This value is very variable and depends on the gold content and the temperature of the bath. The coating consists of a gold/iron alloy.

Operating data:

Gold content	3 g/L
pH-value	2,8 (2,5 - 3,2)
Density	1,065 g/ml (1,060 - 1,070)

Deposition data:

Layer thickness	max. 5 µm
Fineness of the gold layer	ca. 99,5 % Au

Working conditions:

Voltage	2,5 V (2,5 - 3,0)
Bath temperature	20 - 35 °C
Anode material	platinized titanium / MOX
Goods movement	required
Anode- /cathode surface	1:1
Deposition rate	approx. 18 mg/Amin
Power density	approx. 1 - 2,5 A/dm ²
Bath filtration	from 10 liters

Form of delivery:

Ready for use with 3 g/L Au
Regeneration solution JE253-R

Bath control/Regeneration:

Regeneration must be carried out after a gold depletion of 20%. For 1 g of deposited fine gold, 10 ml of potassium gold(III) cyanide solution (100 g/L Au) and 5 ml of regeneration solution JE253-R must be added.

Attention! Only potassium gold(III) cyanide solution should be used for bath replenishment. Using the usual potassium gold(I) cyanide solution will decompose the bath.

To monitor the deposited weight, we recommend using an ampere-minute counter. The pH value and density should be checked regularly and corrected if necessary. If the pH value is too high, add citric acid (approx. 5 g/L), and if the pH value is too low, carefully add 10% potassium hydroxide solution. Bath control should be carried out at regular intervals. We are happy to perform a bath analysis for you.

Recycling:

The used solution contains precious metal, which we work up for you. The recovery of this solution can be profitable from 10 liters.

Storage:

Store closed and dark, in suitable and well marked containers. Do not bring in contact with cyanides or cyanide solutions.

Risks/elimination:

Before desistance of the liquid solution in the canalization a wastewater treatment should be effected. The specifications of the local water authority should be regarded. We are happy to dispose of the solution properly for you.

Please consider our safety data sheet!

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Management Service

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