Pre-Gold Bath JE287

Description:

The adhesive gold bath JE287 is a strongly acidic gold electrolyte required for gilding stainless steels. The coatings are crack-free, ductile, corrosion-resistant, and low in porosity. Layer thicknesses of up to 3 µm are possible. Generally, thin layers of 0.1 µm are sufficient to ensure adhesion. The bath is excellent for direct gilding of chrome-nickel steel, molybdenum-containing steel, and difficult-to-activate nickel-based alloys. Due to its strong activating effect, it can also be successfully used on many hard-to-galvanize, passive materials. The coating consists of a gold/iron alloy.

Operating data:

Gold content	3 g/L
sulfuric acid content	25 g/L (20 - 30)

Deposition data:

Hardness	approx. 165 HV
Layer thickness	max. 3 µm
Fineness of the gold layer	> 99 % Au

Working conditions:

Voltage	2,5 V (2 - 3,5)
Bath temperature	20 - 30 °C
Exposition time	1 min. (max. 30 min.)
Anode material	mixed oxide
Goods movement	required
Anode- /cathode surface	1:1
Power density	2 – 6 A/dm^2
Bath filtration	from 10 liters

Special Post-Treatment:

After gold plating, the parts must undergo electrolytic degreasing (5V/30sec.) to remove electrolyte residues from the surface. This process results in a beautiful, uniform gold color.

Form of delivery:

Ready for use with 3 g/L Au
Regeneration solution JE252-R

Bath control/Regeneration:

A regeneration must be carried out at the latest 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 0.2 ml of regeneration solution JE252-R must be added.

Attention! Only potassium gold(III) cyanide solution should be used for replenishing the bath. Using the usual potassium gold(I) cyanide solution can result in the destruction of the bath and the development of highly toxic hydrogen cyanide fumes.

To monitor the weight of the deposited precipitate, we recommend using an ampere-minute counter. Bath control should be performed at regular intervals. We are happy to conduct 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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