
AUROMEX®

TECHNICAL

INSTRUCTIONS

DATA SHEETS

CUPOMEX MAT

INTRODUCTION

AUROMEX CUPOMEX MAT is a newly acid mat copper plating process. It is specially designed for nickel-free mat finish decorative products such as jewellery items, watch cases and spectacle frame. Deposits are fine, highly ductile and low internal stress.

DEPOSIT CHARACTERISTICS

- * Good throwing and covering power
- * Uniform distribution
- * Economical, easy to operate
- * Low internal stress and highly ductile
- * High efficiency

PLATING BATH PREPARATION

Materials required for making-up 100 litres bath are as follows :-

Copper Sulphate	10 - 12 Kgs
Sulphuric Acid (S.G. 1.84)	8 - 10 Litres
Sodium Chloride, pure	6 - 8 Gms.
CUPOMEX MAT	1 - 1.5 Litres

MAKE-UP PROCEDURES :- (100 LITRES)

- 1) Fill to a clean plating tank 2/3 of the required final volume with distilled or deionised water.
- 2) Add in 10 litres Sulphuric acid carefully.
- 3) Add in 12 kgs. copper sulphate, stir until completely dissolved.
- 4) Filtration with carbon treatment.
- 5) Finally add in 1 litre Cupomex MAT, then the solution is ready to use.

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CHEMICALS CORPORATION

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OPERATING CONDITIONS

	<u>UNIT</u>	<u>RANGE</u>	<u>OPTIMUM</u>
Copper Sulphate	g/l	100-120	100
Copper Metal	g/l	25-30	25
Sulphuric Acid (S.G.1.84)	mls/litre	80-100	100
Chloride Ion (Cl)	mg/litre	60-80	80
Temperature	°C	25-35	25
Agitation		Air or Cathode agitation	
Cathode currenty density AMP./dm ²		1-4	3
Anode		Phosphorous anode	

SOLUTION MAINTENANCE

CUPOMEX MAT : 4,000 Ampre-hours needs to replenish 1 litre CUPOMEX MAT.

COPPER METAL : Normally, it is replenished by dissolving the phosphorous anode. Too low copper metal content will cause burning in high current density area. Suggest periodically solution analysis, and adding copper sulphate for adjustment.

SULPHURIC ACID : Its main purpose is for conductivity and dissolving the copper anode. Too high or low content will affect the deposit result.