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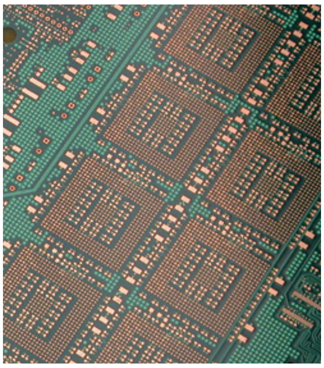
Electroplating

Thru-cup®
EVF-N

COPPER VIA FILLING ELECTROLYTE



Additives for Acid Copper via Filling

Thru-cup® EVF-N is a new additive system for electrolytic acid copper plating on PCB. It is used in panel and pattern plating technology for blind via filling and simultaneous through-hole plating. The blind via hole filling characteristics for holes with diameters less than 150 µm are excellent. Thru-cup EVF-N works with three additives which can be easily controlled by CVS. Via filling performance is not influenced by electrolyte ageing. The plated copper film has an excellent thickness distribution.

Application Features

- Thermal management enhancement
- Higher interconnect density in HDI PCB
- Long term reliability of the assembly and packaging operation

Advantages

- Excellent blind via hole filling characteristics
- Suitable for panel and pattern plating with simultaneous through-hole plating
- Long electrolyte lifetime
- Excellent thickness distribution of the plated copper film
- Concentrations of all additives can be analysed by cyclic voltammetry (CVS)

Applications

- IT products
- Consumer electronics
- Automotive applications

UYEMURA
Japan

Thru-cup® EVF-N

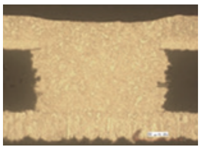
COPPER VIA FILLING ELECTROLYTE

TECHNICAL SPECIFICATIONS

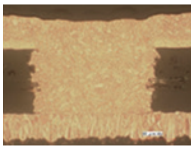
Electrolyte characteristics	
Electrolyte type	Acidic
Metal content	200 g/l $CuSO_4$-$5H_2O$
pH value	(not monitored)
Operating temperature	25 (22 - 27) °C
Current density	1.0 (0.5 - 2.5) A/dm^2
Anode material	Soluble / Insoluble

Cross-Sections After Thru-cup® EVF-N Plating

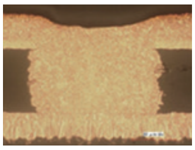
Surface thickness: 20 µm
Hole size: Diameter 125 µm
Depth 85 µm



1.5 A/dm^2



2.0 A/dm^2

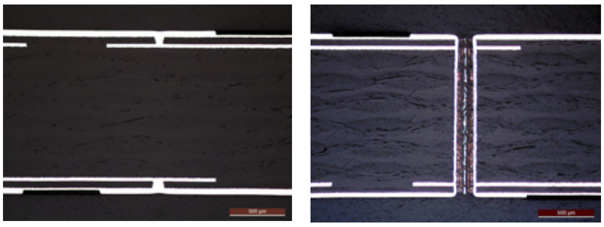


2.5 A/dm^2

Needed Additives and Optional Products

- EVF-2A-10X
- EVF-2B-2X
- EVF-N

Blind via hole filling with low dimple and simultaneous through-hole plating with high throwing power



YOUR CONTACT

Do you have a specific question or would you like a no-obligation quote calculation?
Our specialist will be happy to help you with any technical questions you might have.

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