應用於IC載板上高均勻性的盲孔填孔解決方案

Excellent Uniformity Viafill Electroplating Technology on IC Substrate

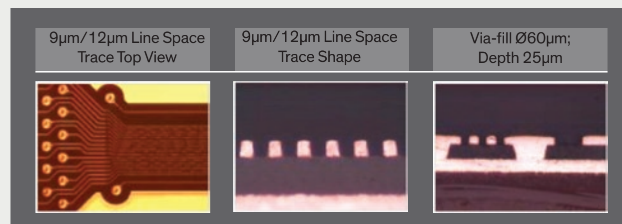
MICROFILL™ LVF IV Acid Copper

In IC substrate territory, manufacturing shops are seeking for better microvia plating solution which can demonstrate excellent uniformity on Flip-Chip pattern plating, since minor uniformity change may easily cause short-circuit or other severe reliability issue under fine-line trend. To meet customers' demand, Dow launched the new formulated MICROFILL™ LVF IV Acid Copper to the market which apply with insoluble anodes and direct current (DC). This chemical can offer our customers excellent panel uniformity, also perform exceptional production flexibility in both panel and pattern plating.

在IC載板領域中,陶氏電子材料了解我們的客戶正在找尋應用在覆晶基板上,盲孔填孔電鍍技術更佳的解決方案，用以克服細線路趨勢下,輕微全板均勻度變異可能造成短路或相關品質問題。我們理解客戶的需求，因此推展MICROFILL™ LVF IV 酸銅鍍液，該產品搭配不溶性陽極與直接電鍍設備使用,可在展現卓越盲孔填孔表現的同時,達到絕佳的全板平整性。無論在全板電鍍或二次銅電鍍都有極高的生產靈活性。

Advantages 優點

- Exceptional microvia filling performance with superior panel uniformity
  卓越的盲孔填孔表現,並展現優異的全板平整性
- Designed for pattern and panel plate applications on Flip-Chip substrate
  可同時應用於覆晶基板全板及圖形電鍍
- Bright, highly ductile, leveled deposits
  鍍銅表面具高亮度,高延展性以及平整性
- DC process with insoluble anodes for simple operation and minimization of idle time effects
  藥水在搭配不溶性陽極與直流電鍍設備下操作容易,產線閒置重啟後的穩定度高
- Easily analyzed and controlled by conventional CVS
  所有化學藥液都可採用CVS分析控制
- Highly tunable process for different end user requirements
  具備彈性的生產流程



Excellent viafill performance in both isolated and dense area
線路獨立與密集區域皆展現良好的填孔平整性

	Isolated Area			Dense Area		
Top View						
Location	Panel Top	Panel Middle	Panel Bottom	Panel Top	Panel Middle	Panel Bottom
1.0ASD, 12LPM	0.9μm (dimple)	1.4μm	0μm	0μm	0.8μm	0.3μm
1.0ASD, 20LPM	1.3μm	1.2μm	1.4μm	0.5μm	0.5μm	0μm

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