應用在HDI具成本效率之填盲孔電鍍銅技術

Cost Effective Viafill Electroplating on HDI Application

MICROFILL™ EVF 15 Acid Copper

Along with denser circuit and smaller via holes trend, to manufacture high reliability HDI board under reasonable cost becomes a tough challenge. In order to conquer it, leading chemical supplier Dow newly launched MICROFILL™ EVF15, the product can demonstrate good via filling performance at thin plating thickness, also achieve other advantages like process flow minimization, productivity increment, and cost effectiveness. Benefit high-end HDI (microvia filling and through-hole plating) customers on both product quality and cost.

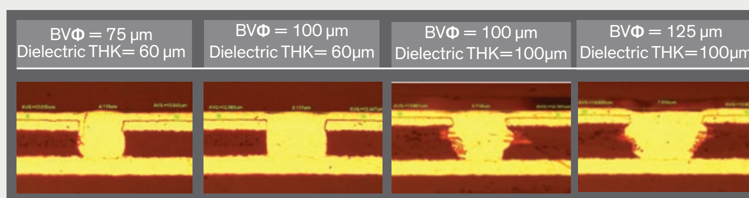
在HDI產業走向高線路密度以致孔徑日益細微化的時代,欲以合理成本製作出穩定電性表現的HDI板挑戰重重。為了克服困難,業界化學品領導供應商陶氏電子材料推出新世代填孔電鍍技術MICROFILL™ EVF 15酸銅藥水。該藥水可在相對薄的電鍍厚度下展現良好填孔效果,達到縮減製程,提升生產效率與成本效率,滿足高階HDI（盲孔填孔和電鍍通孔結構）客戶同時追求產品品質和成本效率最佳化之目標。

Advantages 優點

- Exceptional microvia filling performance on HDI application
  在HDI板上展現卓越的盲孔電鍍填孔表現
- Capable on microvia filling and through-hole plating
  可同時應用於盲孔填孔和電鍍通孔
- DC process with insoluble anodes for simple operation and elimination 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
- Designed for panel and pattern plate applications
  可同時應用於全板及圖形電鍍
- Bright, highly ductile, leveled deposits
  鍍銅表面具高亮度、高延展性、以及平整性
- Easily analyzed and controlled by conventional CVS
  所有化學藥液都可採用CVS分析控制
- Highly flexible process for different end user requirements
  具備彈性的生產流程

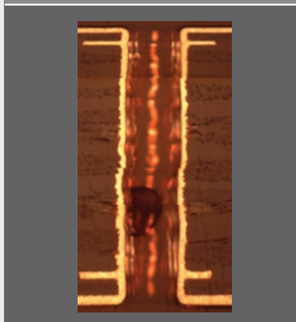
Performance 效能

Performance at Microvia (BV)
(Plating Thickness = 15μm @2 ASD)



Performance at Through Hole (TH)Result:
TP% and Knee TP% >80%

Surface Thickness= 30μm @ 2 ASD
TH Ø = 9.8 mil (AR=5.6)
Core Thickness = 55 mil
Board Thickness: 1.0-1.4mmt



® ™ Trademarks of The Dow Chemical Company ("Dow") or an affiliated company of Dow