# Cost Effective Viafill Electroplating on HDI Application

# 应用在HDI具成本效率之填盲孔电镀铜技术

## 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.

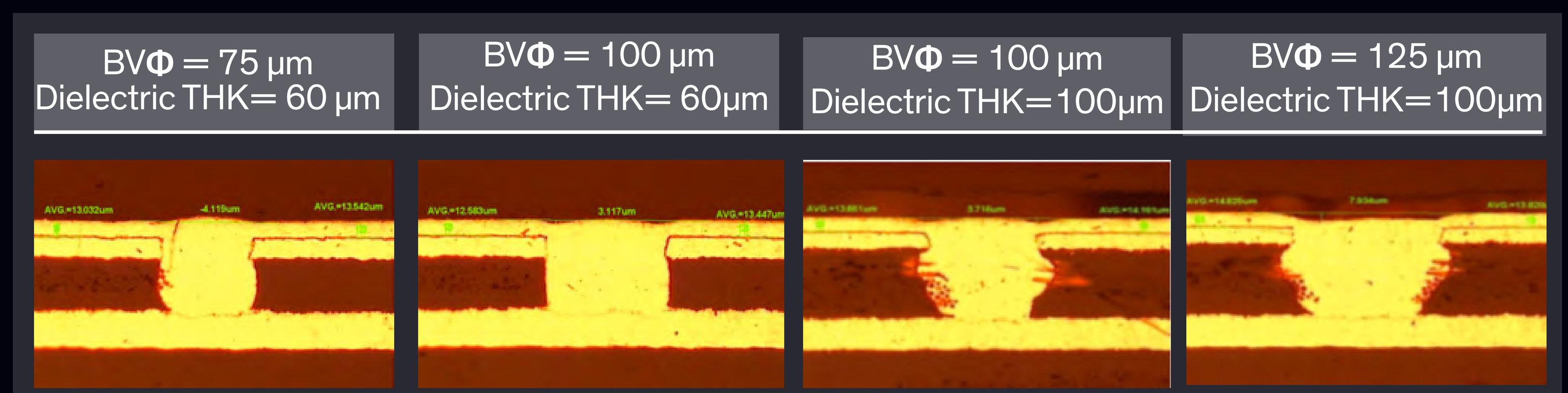
在HDI产业走向高线路密度以致孔径日益细微化的时代，欲以合理成本制作出稳定电性表现的HDI板挑战重重。为了克服困难，业界化学品领导供应商陶氏电子材料推出新世代填孔电镀技术MICROFILL™ EVF 15酸铜药水。该药水可在相对薄的电镀厚度下展现良好填孔效果，达到缩减制程，提升生产效率与成本效率，满足高阶HDI（盲孔填孔和电镀通孔结构）客户同时追求产品品质和成本效率最佳化之目标。

### Advantages 优点

- Exceptional microvia filling performance on HDI application
  在HDI板上展现卓越的盲孔电镀填孔表现
- Capable on microvia filling and through-hole plating
  可同时应用于盲孔填孔和电镀通孔
- DC process with insoluble anodes for simple operation and elimination of idle time effects
  药水在搭配不溶性阳极与直流电镀设备下操作容易，产线闲置重启后的稳定度高
- Designed for panel and pattern plate applications
  可同时应用于全板及二次铜电镀
- Bright, highly ductile, leveled deposits
  镀铜表面具高亮度、高延展性、以及平整性
- Easily analyzed and controlled by conventional CVS
  所有化学药液都可采用CVS分析控制
- Highly flexible process for different end user requirements
  具备弹性的生产流程

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

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