

Electroless Copper

Advanced Dielectric Metallization Process



Electroless Copper EC 92 Process

Electroless Copper EC 92 is a proprietary process that makes dielectric material conductive by depositing a thin layer of low stress copper. The EC 92 process is capable of depositing standard material, including difficult dielectric material like Teflon and polyimide.

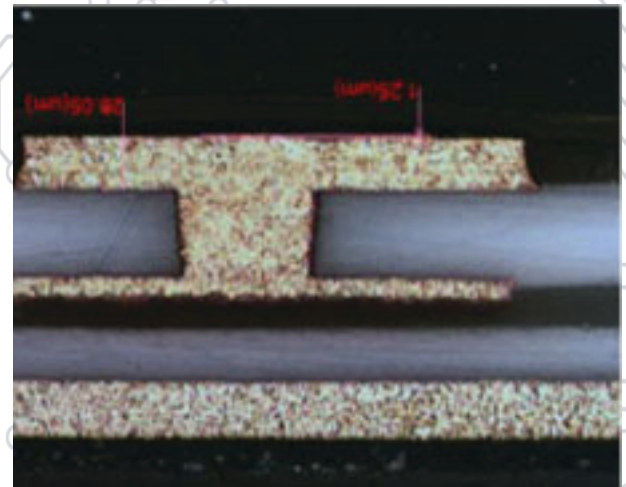
Its unique formula solves the stability and coverage issues associated with Electroless Copper processes. The EC 92 process makes it possible to improve reliability required for critical applications, while reducing process steps and overall cost.

Features

- Superior adhesion to Cu and dielectric materials
- Thin, low-stress deposit
- Extremely stable
- Reliable performance
- Lower thickness reduces overall cost

Benefits

- High reliability
- Greener Electroless Copper process than most competitive products
- High productivity with shorter stop time for maintenance
- Excellent coverage of difficult-to-plate materials like PI, PTFE & LCP
- Extremely cost-effective



Plates well on sophisticated material.



Excellent physical properties and grain structure between plated copper and inner layer.

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Reliability Results

The EC 92 process improves reliability, making it possible to produce advanced technology with cost-saving benefits. Rigid, flex, PI, PTFE, LCP, complex design, HDI, BV, high aspect ratios do not matter, EC 92 makes it possible.

Standard Materials

IS-402
FR-406
Polyimide
BT Epoxy

High-Frequency Materials

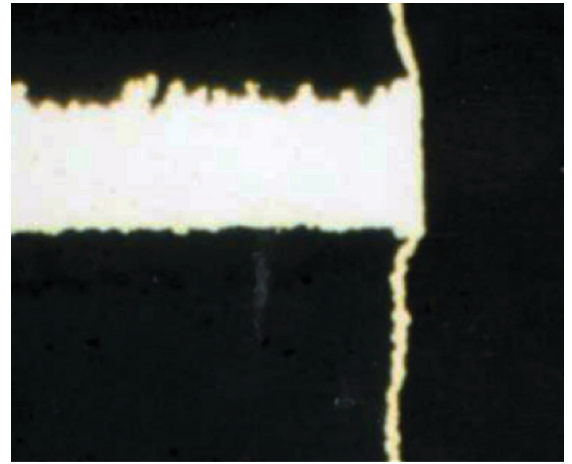
IS-408HR
IS-408
Nelco 4000-13
Rogers 3000, 4000, 5000 & 6000 series
Arlon 25 series-special stock for Redline
PTFE
Taconic
Thermagon
Megtron 4 and 6

Lead-Free Materials

PCL 370HR
IS-410
Matsushita MEM 1755

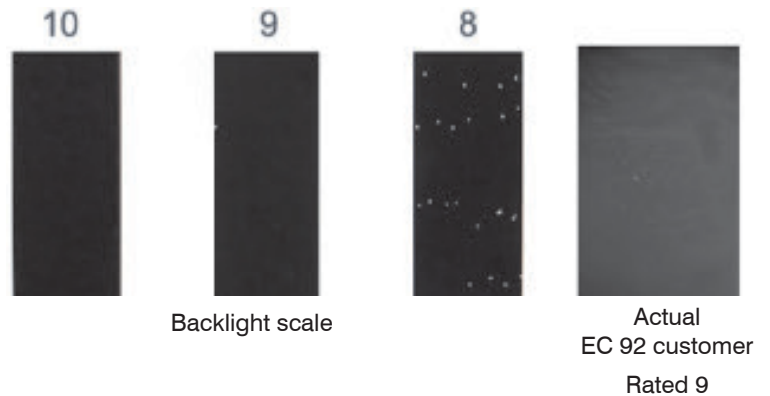
Performance: In Production

Passes 288°C X 10 Thermal Excursions
Passes (IST) Interconnect Stress Testing
Layer Count: 24
Hole Diameter: 5.7 Mil
Aspect Ratio: 30:1
Micro Via: 2 mil, 1 to 1 aspect ratio



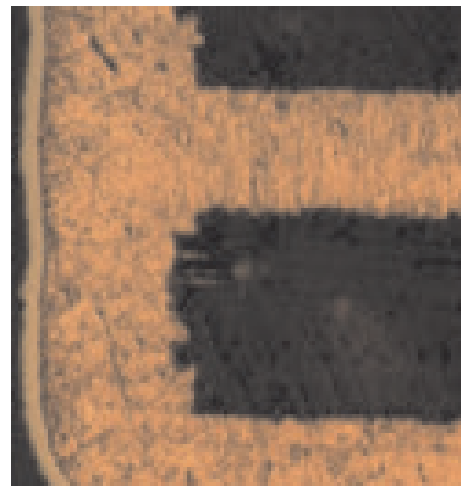
Electroless Copper deposition on the whole wall and inner layer junction.

Electroless Copper deposition for backlight testing.



Backlight scale

Actual
EC 92 customer
Rated 9



Perfect deposition, no inner layer separation.