

Electrolytic Copper

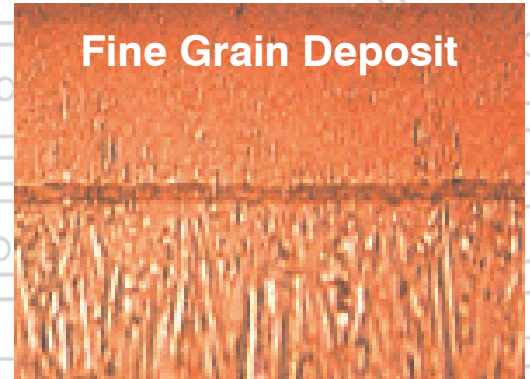


Technic Cu 2800, Cu135, Cu128

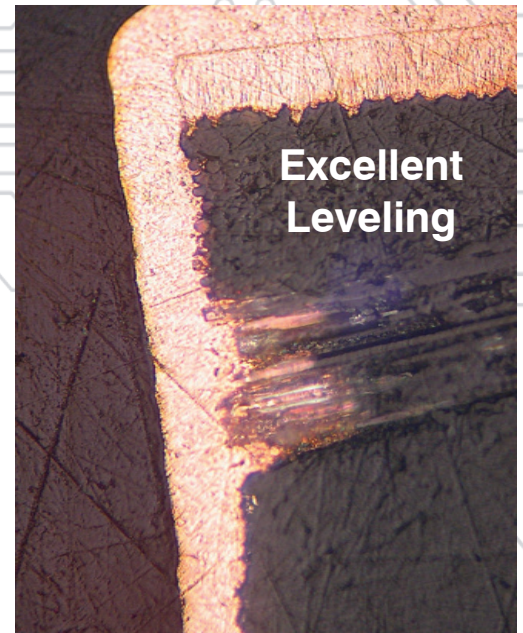
Technic Copper plating processes provide excellent throwing power and produce a uniform deposit with good ductility and a fine-grained equiaxed structure. These processes utilize a one-component system per amp-hour based on replenishment and individual components. These processes are available to optimize for specific applications. The additive system is extremely stable and completely analyzable.

The brightener molecule designed and manufactured by Technic provides both grain refinement and leveling of the deposit. Unlike other systems that utilize high levels of sulfur-bearing additives to level rough topography, Technic's additives will provide leveling without a third component that can affect deposit performance.

Fine Grain Deposit



Excellent Leveling



Features

- Low consumption per amp-hour
- One component replenisher
- Fully analyzable (Technic EBA)
- Process adaptable, high-aspect ratio to super high-current density
- Works with soluble anodes or ISA

Benefits

- Excellent leveling
- High elongation
- High tensile strength
- Passes multiple solder float
- Superior surface distribution
- Excellent throwing power
- Exceptional ductility
- Low stress

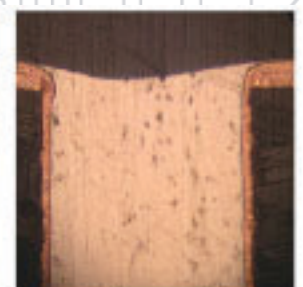
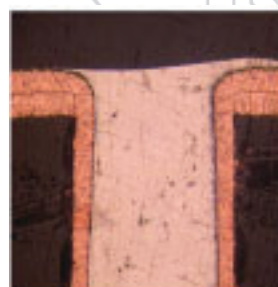
Thermal Shock Conditions:

Temperature - 550°F(288°C)

Time -10 second float

Cycles - 6 cooling to room temp after each float

Results - No failures observed



Technic Electrolytic Copper

Technic CU 2800

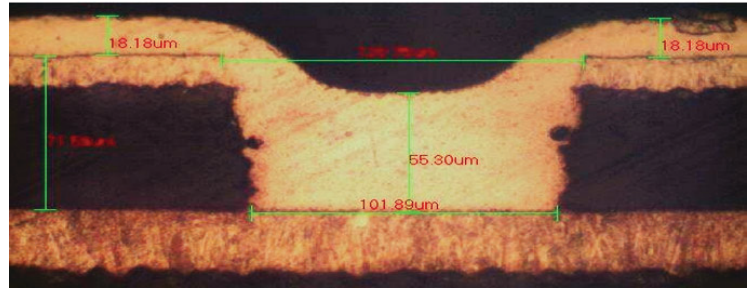
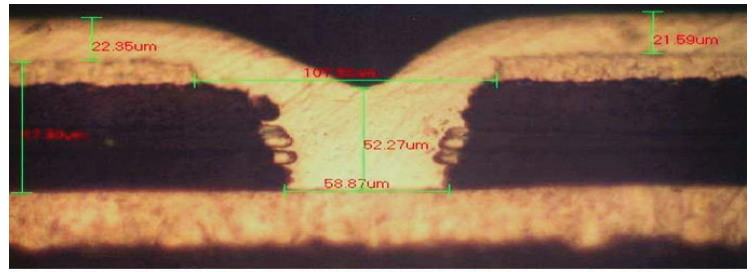
- Elongation: 18-33%
- Tensile strength: 40-50 KPSI
- Thermal shock: Pass 6 Cycle
- Cathode current density: 5-15 ASF
- Anodes: Conventional
- Can do microvias and high aspect ratio

Technic CU 135

- Elongation: 18-33%
- Tensile strength: 40-50 KPSI
- Thermal shock: Pass 6 Cycle
- Cathode current density: 5-15 ASF
- Anodes: ISA (Technic Insoluble anode system)
- Can do microvias and high aspect ratio

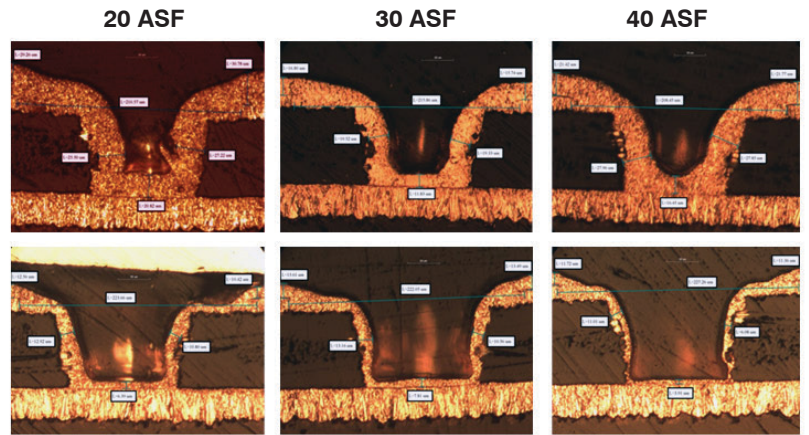
Technic CU 128

- Elongation: 18-33%
- Tensile strength: 40-50 KPSI
- Thermal shock: Pass 6 Cycle
- Cathode current density: 25-100 ASF
- Anodes: ISA (Technic Insoluble Anode System)
- Can do microvias and high aspect ratio



CU128 40 ASF, conformal plating in a vertical equipment and ISA anodes.

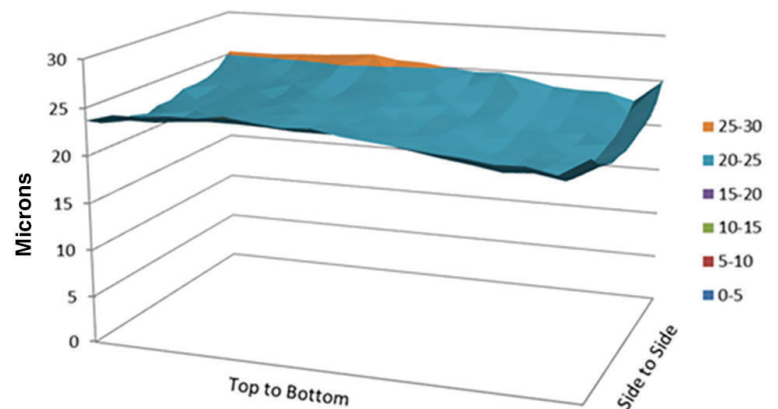
Technic Cu 128
Competitive Copper



Conformal Plating ~1 mil: Technic CU128 Vs PEG/SPS System same plating cell, same part, large blind vias.

NOTE: To achieve optimal surface distribution and throwing power, solution movement and component composition must be optimized. Reach out to your Technic representative for an audit and recommendations.

Surface Distribution Cu128 at 80ASF



Excellent surface distribution of the CU128 using ISA anodes in a vertical equipment.