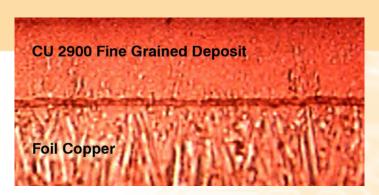
## Acid Copper

# Technic CU 2900

**TECHNIC CU 2900** is a truly unique acid copper plating process specifically designed to meet the demands of today's complex printed circuit board designs. Providing excellent throwing power over a wide current density range, Technic CU 2900 offers specific advantages in:



- Low current density processing for improved distribution on demanding designs
- Increased production capacity on standard product

The superior throwing power of **Technic CU 2900** results in uniform deposits with good ductility and a fine-grained equiaxed structure. The process utilizes a one-component system for amp-hour based replenishment. Individual components are available for optimization of specific applications. The additive system is extremely stable and completely analyzable.

### SUPERIOR LEVELING

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 CU 2900** provides leveling without a third component that can negatively effect deposit performance.







| Foil 10 ASF         |                   |                            | Foil 15 ASF         |                |                           |
|---------------------|-------------------|----------------------------|---------------------|----------------|---------------------------|
| Thickness<br>(mils) | Elongation<br>(%) | Tensile Strength<br>(KPSI) | Thickness<br>(mils) | Elongation (%) | Tensile Strength<br>(KPSI |
| 2                   | 22 Ave            | 48 Ave                     | 2                   | 21 Ave         | 46 Ave                    |



# Technic CU 2900

#### **Thermal Shock Conditions**

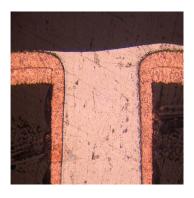
Temp: 550° F (288° C)

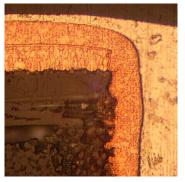
Time: 10 second float

Cycles: 6 cooling to room temp

after each float

Results: No failures observed







### THERMAL SHOCK RESULTS

The excellent elongation characteristics of this additive system make it ideally suited where mechanical stress resistance is critical. The copper deposited from the **TECHNIC CU 2900** process meets all military, IPC and specific OEM requirements for purity, elongation, thermal cycle and thermal shock resistance.

#### **EXCELLENT THROWING POWER**

The **Technic CU 2900** acid copper was specifically engineered to provide high throw without the high cost of PPR rectification. The result is the capability of plating a higher current density than standard acid copper while achieving equivalent or higher copper deposit in the through hole. This can mean 25 microns (1 mil) in the center of the hole in 10 – 20% less time.

| Hole Diameter | Aspect Ratio | Throwing Power |        |  |
|---------------|--------------|----------------|--------|--|
| (inch)        |              | 15 ASF         | 25 ASF |  |
| 0.01          | 10:1         | 83.3%          | 83.3%  |  |
| 0.12          | 8.3:1        | 82.9%          | 83.3%  |  |
| 0.24          | 4.2:1        | 100%           | 96.3%  |  |

The **TECHNIC CU 2900** process is fully analyzable and can be monitored and replenished based on actual bath consumption of the individual components by using Technic's patented **EB Analyzer**. This easy to use monitoring system analyzes the copper, sulfuric acid, and the two **TECHNIC CU 2900** components, Carrier and Brightener, offering complete control for the components of the acid copper process. This level of control results in improved plating performance and ensures process consistency.





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