



116 Research Dr, Suite 129
Bethlehem, PA 18015
Phone: 610.849.5041
Email: info@LBN-Inc.com

CuP-600™

Copper Surface Preparation

Technical Data Sheet (TDS)

Description

CuP-600™ provides superior copper surface treatment, to enhance bonding of smooth copper to inorganic and organic substrates, such as prepreg. CuP-600™ is a patent pending advanced novel cost effective alkaline aqueous surface treatment formulation used in multiple copper surface prep applications. CuP-600™ is the latest in a series of copper surface preparation family of products that minimize the copper oxide layer film thickness.

Applications

Where smooth copper surface is required, typically at higher signal speeds greater than 20 GHz. Intended to replace Sulfuric/Peroxide based micro etch and oxide treatment processes that increase copper roughness (pitting). CuP-600™ is to be used for effective bonding of copper to prepreg, dielectric, dry film and liquid photoresist, tin plating, and soldermask adhesion.

CuP-600™ Benefits

1. Lower cost of ownership (COO)
2. Operate in either immersion or spray mode
3. Minimize copper oxides thickness
4. Minimize insertion loss due to skin effect
5. Reduce dielectric surface ionic contamination
6. Reduce wastewater treatment costs
7. Provide adhesion without increased Cu roughness
8. Cu bath loading does not affect performance
9. Removes most oils and surface contamination
10. Process is simple with few steps

Process Recommendation: See attached *CuP-600™ Process Operating Recommendations*
Prevent treated copper surfaces from being exposed to air/oxygen, UV light and moisture during hold times. Hold time after treatment should be held to a minimum (less than 24 hours).

Material Compatibility: *Material Compatibility Chart available upon request.*

Materials include but are not limited to include High Density polyethylene (HDPE), PFA, Polypropylene, 316L Stainless steel, and Teflon (PTFE) are normally suitable materials of construction.

Handling/Storage/Shipping

Read the product MSDS before handling and using the product. CuP-600™ has a twenty-four (24) month shelf life when stored in unopened containers. Store at 0-25° C.

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CuP-600™ Process Operating Recommendations

Process Guidelines:

Suggested treatment process prior to lamination/photoresist deposition or final finish deposition.

Adjustments may be needed to meet various specs dependent on the types of substrate used in the specific process.

