

# ENTEK® PLUS Process

## PWB COPPER PROTECTIVE COATING

The ENTEK® PLUS Process deposits ENTEK PLUS CU-106A, an innovative PWB copper protective coating for electronic applications. The protective coating is an alternative to hot air solder leveling (HASL) and other metallic PWB surface finishes. ENTEK PLUS CU-106A provides excellent protection against copper solderability degradation caused by exposure to multiple heat cycles during SMT and mixed technology assembly. The resultant topography of the PWB features is uniformly flat, thus facilitating the assembly of surface mount technology (SMT) and fine pitch technology (FPT) components.

The ENTEK PLUS CU-106A coating is fully compatible with Enthone-OMI's ENPASTE™ solder pastes, ENFLUX™ low solids, no-clean fluxes and ENTHONE® DSR liquid photoimageable solder masks.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>■ Flat, solder free SMT pad features</li> </ul>	<ul style="list-style-type: none"> <li>■ Ease of solder paste deposition</li> <li>■ Uniform solder volume per joint</li> <li>■ Minimizes FPT component skewing during placement</li> <li>■ Improves first pass assembly yields</li> </ul>
<ul style="list-style-type: none"> <li>■ Eliminates copper-tin intermetallics from HASL</li> </ul>	<ul style="list-style-type: none"> <li>■ Stronger solder joints</li> <li>■ Uniformly solderable pads and through-holes</li> </ul>
<ul style="list-style-type: none"> <li>■ Eliminates PWB thermal shock and warp from HASL process</li> </ul>	<ul style="list-style-type: none"> <li>■ Improved PWB structural integrity</li> <li>■ Improved accuracy of solder paste deposition and component placement</li> </ul>
<ul style="list-style-type: none"> <li>■ Withstands multiple heat cycles</li> </ul>	<ul style="list-style-type: none"> <li>■ Compatible with today's complex SMT assemblies</li> </ul>
<ul style="list-style-type: none"> <li>■ Compatible with all flux types</li> </ul>	<ul style="list-style-type: none"> <li>■ Suitable for all PWB assembly processes</li> </ul>



The ENTEK PLUS CU-106A is available from Tamura Kaken Co., Ltd., Tokyo, Japan as SOLDERITE WPF-106A and is manufactured by Enthone-OMI Inc. under license.



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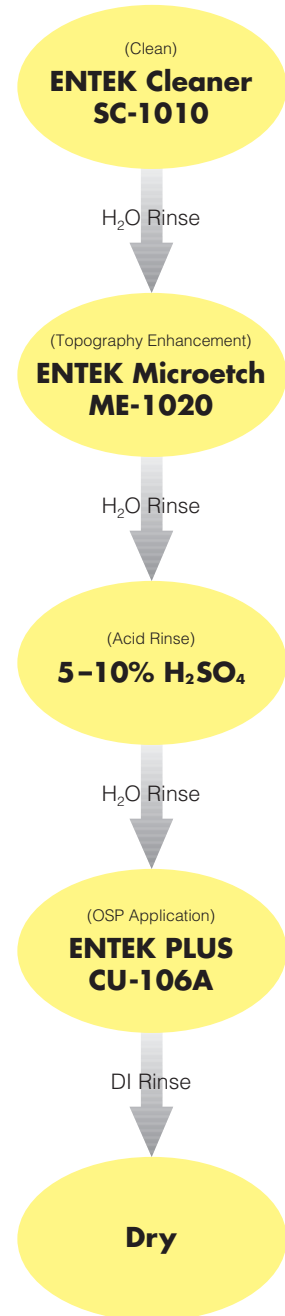
# ENTEK® PLUS Process

## PWB COPPER PROTECTIVE COATING SYSTEM

The ENTEK® PLUS Process is an innovative protective coating system for copper pads and through-holes on PWBs. The protective coating deposited by the ENTEK PLUS Process is used as an alternative to hot air solder leveling (HASL) and other metallic PWB surface finishes. The coating provides excellent protection against copper solderability degradation caused by exposure to multiple heat cycles during SMT and mixed technology PWB assembly.

The ENTEK PLUS Process consists of ENTEK Cleaner SC-1010, ENTEK Microetch ME-1020, a sulfuric acid rinse, and ENTEK PLUS CU-106A. Ultimate coating consistency and solderability is assured only with the use of the ENTEK PLUS On Copper Horizontal (EPOCH™) Equipment System.

FEATURES	BENEFITS
<ul style="list-style-type: none"> <li>Replaces hot air solder levelling (HASL)</li> </ul>	<ul style="list-style-type: none"> <li>Eliminates environmental/toxicity concerns associated with solder coatings</li> <li>Eliminates worker exposure to lead</li> <li>Reduces use of lead</li> <li>Reduces operational and maintenance labor requirements</li> <li>Eliminates variability of solder coating thickness</li> <li>Improves PWB structural integrity</li> </ul>
<ul style="list-style-type: none"> <li>Aqueous process</li> </ul>	<ul style="list-style-type: none"> <li>Low-cost, conveyORIZED horizontal equipment for high through-put</li> <li>No fire hazards from solution</li> <li>Simplified waste treatment</li> </ul>
<ul style="list-style-type: none"> <li>Uniform coating thickness and consistently flat pad surfaces</li> </ul>	<ul style="list-style-type: none"> <li>Satisfies assembler requirements for SMT, FPT</li> </ul>



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