





## Better chemistry. Better business.

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White Paper

Title: Laser B A Start for a Brilliant Finish

Revision Date: July 1, 2019

restriction is that the substrate be solid copper or brass - not plated over steel or some other metal.

And while this has been mainly used as a final finish, it may be used to treat parts prior to plating or some other post treatment. Adhesion of the subsequent plate remains high, despite the luster.

Of course, no system is for everyone. While the Laser process saves labor later in processing, it must be kept in chemical balance as it is used. This is done by some simple titration procedures and temperature control. Also, the Laser requires three process steps. Unlike most copper processes which would etch the metal, the first imparts a shine protected by a brown oxide film:

CuO + H2O2 CuO + H2O (EQ.2) Not: CuO + H2O2 + H2SO4 CuSO4 + 2H2O (EQ.3)

The next is a very thorough rinse. The final is the oxide removal to give the luster. If the bath gets out of balance, the luster will be lost temporarily, and the finish will be matte. A quick analysis will determine how balance can be restored. When the balance returns, so does the luster.

As previously mentioned, the environmental advantages are numerous. Unlike



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