



Product Bulletin

Better Chemistry. **Better Business.**

Ni*Add P-310

Product Code: 2850012
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Ni*Add P-310

Ni* Add P-310 is a blended proprietary composition developed as an adjunct additive for use in bright nickel plating systems. Incorporating the most advanced and progressive nickel brightener technology, **Ni* Add P-310** produces better leveling and improved low current density coverage. The overall appearance is enhanced with an increase in the plastic or flowed look of the bright nickel plated deposit. This allows for increased production rates as well.

Ni* Add P-310 should be compatible with all bright nickel-plating systems and can be added directly into existing systems. Initial addition to the plating bath should be made at 0.02-0.1 % by the volume of the plating bath. For systems which are operating at peak brightness and leveling add the product at the lowest level and increase concentration as needed. Maintenance additions should be added at the rate of 10-20% of the volume of the primary brightener. Usually, this would be at the rate of one (1) gallon per 20-40,000 ampere hours.

Ni* Add P-310 is not formulated to be a sole or primary nickel brightener. To appreciate the full benefit of this additive it is essential that the level of the systems' primary brightener is at an effective level. If the nickel deposit is "flat" and a reasonable addition of **Ni*Add P-310** (0.01% by volume) does not show a definite improvement in the quality of the deposit, then a small addition of the systems primary brightener should be added to reach the desired improvement.

It is recommended that prior to incorporating **Ni*Add P-310** into an existing system, laboratory plating tests be performed to determine the effectiveness of the product in the system and the most beneficial initial addition requirement.

Ni* Add P- 310 is not a metallic, propargyl, nor Pyridinium based product and is not particularly sensitive to basic bath chemistry. This product does not tend to produce low current darkness nor skip plating under normal concentration levels.

WARRANTY

THE QUALITY OF THIS PRODUCT IS GUARANTEED ON SHIPMENT FROM OUR PLANT. IF THE USE RECOMMENDATIONS ARE FOLLOWED, DESIRED RESULTS WILL BE OBTAINED. SINCE THE USE OF OUR PRODUCTS IS BEYOND OUR CONTROL, NO GUARANTEE EXPRESSED OR IMPLIED IS MADE AS TO THE EFFECTS OF SUCH USE, OR THE RESULTS TO BE OBTAINED.