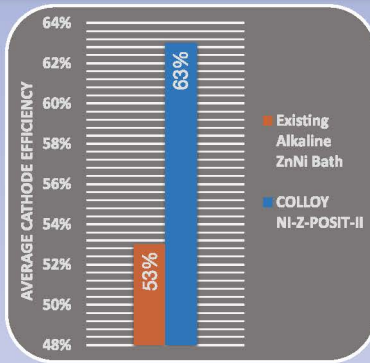


# COLLOY® NI-Z POSIT-II

Process For Alkaline Zinc-Nickel Plating  
Provides Benefits You Can't Afford To Ignore



## INCREASED PLATING SPEED

COLLOY® NI-Z-POSIT-II based plating solutions can provide increases of up to 10% in cathode efficiency when compared to most existing NaOH based alkaline zinc-nickel baths. Increased plating speeds drive throughput and reduce related energy expense.



Mandrel Bend Test

## EXCELLENT DUCTILITY

Deposits plated from COLLOY® NI-Z-POSIT-II with a 12% - 15% Ni content can be subjected to bending or crimping operations after plating. The excellent ductility of the deposit helps minimize the occurrence of cracking so that corrosion resistance is not adversely affected. Excellent deposit ductility is a critical factor to minimize scrap or re-work material.



## BRIGHTNESS WITHOUT DEPOSIT STRESS

COLLOY® NI-Z-POSIT-II provides a bright alkaline zinc-nickel deposit rather than the semi-bright or matte appearance more commonly obtained. Brightness is achieved without adding additional stress to the alloy deposit, so delayed blistering and burning in high current density areas is eliminated. Improved brightness will greatly enhance the final appearance of clear, blue and black trivalent passivation layers.

**Contact us to request a comparative bath analysis!**



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## FEATURES AND BENEFITS

### **CONSOL - COLLOY NI-Z POSIT- II**

#### **ZINC/NICKEL ALLOY PLATING PROCESS FROM AN ALKALINE CYANIDE-FREE BATH**

Brought to India in association with Columbia Chemical Corpn.,-U.S.A., World leaders in Zinc Plating Technologies.

- ◆ Developed to provide a Deep Bright deposit containing 12-15% nickel in the deposit.
- ◆ Process has a wide operating window, with zinc concentration of 6 - 11.25 g/L.
- ◆ Process does not require separate rectifiers or anodes for replenishment of Nickel in the plating solution.
- ◆ The deposition is speedy, has superior chromate acceptability and is well suited for both Rack & Barrel plating process.
- ◆ Unique Process that can be operated with either NaOH or KOH which helps to increase efficiency.
- ◆ Alloy deposits produced have increased levels of hardness and high temperature resistance, giving superior corrosion protection.

#### **OPERATING PARAMETERS**

	<b>Range</b>	<b>Optimum</b>
Zinc Metal	6 – 11.25 g/L	7.5 g/L
Caustic Soda	75 - 135 g/L	112 g/L
Nickel Metal	1200 - 1800 ppm	1500 ppm
Operating Temp	21° - 34°C	26°C
<b>CONSOL - Colloy NI-Z-POSIT-II MAKEUP 510*</b>	8% - 12% by volume	10% by volume
<b>CONSOL - Colloy NI-Z-POSIT-II REPLENISHER 520*</b>	0.9% - 1.4% by volume	1.2% by volume
<b>CONSOL - Colloy NI-Z-POSIT-II BRIGHTENER 531</b>	0.2% - 0.4% by volume	0.25% by volume
<b>CONSOL - Colloy NI-Z-POSIT-II BOOSTER 541</b>	0.05% - 0.4% by volume	0.10% by volume
Filtration	Continuous	2 - 4 tank turn-overs/Hr
Agitation	Mechanical	Barrel: 4-6 RPM
Cathode Current Density	Barrel: 5 - 10 ASF (0.5 - 1.0 ASD) Rack: 10 - 30 ASF (1.0 - 3.0 ASD)	

*\*Note: The CONSOL NI-Z-POSIT-II REPLENISHER 520 must be mixed with the CONSOL NI-Z-POSIT-II MAKEUP 510 prior to adding to the tank. Make a pre-mix solution containing 1 part CONSOL NI-Z-POSIT- II MAKEUP 510 and 1 part CONSOL NI-Z-POSIT-II REPLENISHER 520. Mix well. Use this solution to add back to the plating tank when Nickel needs to be replenished. After the pre-mix is made a 0.16% v/v add-back to the plating tank will replenish approximately 100 ppm Ni to the plating solution.*

**Attention:** This sheet is only meant to provide Features and Benefits of the process mentioned. For detailed Usage, Please refer the product Technical Data Sheet. For Safety, handling and Chemical information please refer the Safety Data Sheet. These can be provided through a Consolidated Metal Finishing Pvt. Ltd. representatives or requesting us for the same by email.