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# **ELECTROLESS NICKEL PLATING**



# **APPLICATIONS**

Automotive and aerospace components • Electrical equipment • Molds and dies Foodservice equipment • Gas and oil components • Printing industry equipment Packaging and handling machinery • Salvage applications

## **Electroless Nickel Plating Expertise at your Service**

Electroless nickel plating is an auto-catalytic reaction that deposits an even layer of phosphorous nickel alloy on the surface of a solid material (substrate), like metal or plastic. Our plating process starts with dipping the material in a plating solution bath. Once submerged, a reducing agent reacts with the material's ions to deposit the alloy.

Electroless plating is different from electroplating in that it does not require passing an electric current through the plating solution to create a coating on the substrate. The electroless nickel plating process deposits a reliable, repeatable nickel coating of uniform thickness. This process eliminates the uneven buildup typical of other electroplating processes that can compromise threads and part tolerances that lead to post-plate grinding.

## The following finishing options are available at Eco Finishing:

- Medium phosphorous
- High phosphorous
- High build up to 0.002"

## **Understanding Phosphorus Content**

The phosphorus content of an electroless nickel finish depends on the level of corrosion protection you need for the substrate.

Medium-phosphorous electroless nickel is the standard electroless nickel process. It provides a balanced combination of wear resistance, corrosion protection, lubricity, and affordability. High-phosphorous electroless nickel, on the other hand, offers increased corrosion protection, most resistant to acidic environments.

Electroless nickel provides excellent corrosion protection, solderability and lubricity, and effectively coats parts with sharp edges, deep recesses, seams, threads and complex geometries.



#### **SPECIFICATIONS** MIL-C-26074 • AMS 2404 • ASTM B733 • ISO 4527

#### **CAPABILITIES & RELATED SERVICES**

 Rack and Barrel (bulk) plating Hydrogen embrittlement relief

Salt spray testing

Stripping

- Tumbling • Blasting
- Packaging
  - Masking

#### **COMMON SUBSTRATES**

Steel

Aluminum

- Copper/Brass • Zinc die cast
- Stainless steel Hardened alloys

### WE ARE READY TO HELP

Eco Finishing can help you find an electroless nickel plating option that fits your needs. Contact our Fridley office at (763) 574-1000 or contact us for a risk-free quote at www.ecofinishing.com.