Nedox® Basic Electroless Nickel

Wear resistant coating offers corrosion protection on metals

Nedox® Basic electroless nickel is a high quality electroless nickel process worthy of the Magnaplate name, which delivers superior performance compared to other electroless nickel processes.

Our Nedox® Basic electroless nickel coating offers many distinct advantages when plating irregularly-shaped objects, holes, recesses, internal surfaces, valves or threaded parts. This coating features uniform deposit thickness and ductility relative to pure metals, and its high surface hardness and reliable corrosion-resistance makes it ideal for industrial applications.

Instead of electrolytic energy, our Nedox® Basic electroless nickel process relies on an autocatalytic reaction to create the plating by depositing nickel. As plated, Nedox® Basic's magnetic properties can range from magnetic to non-magnetic depending on the phosphorous content.

UPGRADE YOUR COATING

If you’re looking for even more advanced features, consider upgrading to one of our synergistic Nedox® coatings. This family of coatings takes our Nedox® Basic electroless nickel to the next level by providing optimal release properties, as well as a lower coefficient of friction. Our Nedox® synergistic coatings contain polymers and dry lubricants for reliable lubricity and anti-stick properties.
### Technical Advantages

- Operating temperatures from -250 to 1000°F.
- Surface hardnesses up to Rc 63 (940 Vickers).
- Coating thicknesses from 0.0002 to 0.002 inches.
- Low coefficient of thermal expansion: 7.22 x 10⁶ in/in/°F (13 x 10⁶ in/in/°C).
- Low thermal conductivity: 0.0105 to 0.0135 Cal-cm/sec/°C.
- Excellent corrosion resistance can meet or exceed 1000 hours of salt spray resistance.
- Superior quality and process control (NADCAP).
- Compliance with industry standards such as:
  - ASTM B117, ASTM B656 and ASTM B733.
  - RoHS.
  - REACH.
  - MIL-C-26074 Class 1-4 and AMS 2404 and 2405.

### Types of Electroless Nickel

- Medium phosphorous (5-9%).
- High phosphorous (10-14%).

### Ideal Applications

- Chemical processing.
- Aerospace and transportation.
- Electronics and semiconductors.
- Instrumentation.
- Oil, gas and energy.
- Powder and bulk solids.
- Space exploration.
- Valves, pumps and compressors.

### Materials

- Stainless Steel.
- Steel.
- Copper.
- Brass.
- Bronze.
- Titanium.
- Aluminum.

To learn more about NEDOX Basic and other problem-solving surface enhancement coatings, contact technical representatives at General Magnaplate Corporation.