

High Phosphate Electroless Nickel Plating

Parts under heavy use in harsh environments call for Electroless Nickel, High Phosphate plating. The process offers a nonporous, very hard surface to protect parts exposed to hostile working environments.

Features:

- Stain resistance
- Smooth and even coating, no matter the shape of the part, including recesses and holes
- Heat treated deposits compare in hardness to hard chrome
- Extremely low coefficient of friction
- Semi-bright coating
- Superior corrosion protection
- Little or no porosity
- Non-magnetic

High Phos Physical Properties

Phosphorus Content 10.5-12

Melting Point 1620 deg F

Coefficient of Thermal Expansion 13-15

Electrical Resistivity 0.01505-0.0135

Magnetic Properties 50-100

Hardness

Koop Hardness

100 g load, 3 mil deposit, steel

As Plated 500-580

Heat Treated 900-1000

Wear Properties

Taber Abraser Wear Test

Index Value wt. Loss mg/1000 cycles

As Plated 15-22

Heat Treated 4-8

Corrosion related properties (test may vary do to surface condition of part)

Salt Spray test (ASTM B117) 95 deg F

5% NaCl, 1 mil deposit, hours to first corrosion spot

Aluminum 1,000+

Carbon Steel 1,000+

