

Electroless Nickel Plating

Electroless nickel plating is an alloy nickel-phosphorous plating obtained by the catalytic reduction of nickel. Normally electroless nickel plating thickness is limited to 80 microns maximum. Heat treatment is to carry out a degasification and to improve densification and adhesion. The hardness of the deposit varies from 550-650 HV. On heat treatment above 290 deg. C, the deposit becomes amorphous and hardness is increased to 950-1000 HV. Hardness of heat treated electroless nickel is superior to hard chrome coatings.



Properties

- Ø Good wear resistance
- Ø Good anti seizure property
- Ø Good corrosion resistance
- Ø Brighter than electrodeposited Nickel which is slightly yellow
- Ø Deposit thickness uniform over entire surface of substrate almost independent of its shape and geometry.

Typical Applications

- ♣ Heat sinks, Drive shafts, Carburetors, Gear wheels
- ♣ Drive trains, Hydraulic components, compressed parts, Motor bearing couplings
- ♣ Pump and blower housings, Pipes & pipe work, Pressure cylinders, Filters
- ♣ Switch gear, Electronic components, Floppy discs, Disc drives, EMI shielding
- ♣ Moulds, Piping, Extrusion dies, Gears and bearings
- ♣ Shafts for diesel engines, Drive components, Valve shafts, Engine valves
- ♣ Conveyors, Hydraulic equipment, Chains, Pressure cylinders
- ♣ Valves, Exhaust stacks, Conveyor components, Pipe casting

