

DURATECH

Nickel Tungsten alloy plating process for hard chrome direct replacement for automotive and mechanical components

Duratech is a chrome free formulation which produces high abrasion resistance and low stress deposit. The electrolyte produces bright appearance (not as bright as chromium), a user friendly process with no special change to plating sequence and the deposit ratio Nickel-Tungsten is 65-35 with hardness 550HV as plated. This electrolyte has diverse applications such as automotive and mechanical components, hydraulic and pneumatic piston rods and cylinders, mining equipment.

Electrolyte Data

User friendliness
Cr free formulation
Wide operating window
DC Plating; No special rectifier required
Direct Replacement for hard chrome plating in existing plating line/setup
Stable alloy composition
Easy to integrate to existing system
Easy to analyze and control bath
Suitable for rack, barrel and high speed reel to reel plating applications

Deposit data

Direct replacement for hard chrome
High abrasion resistance compared to hexavalent chrome at higher temperatures
High corrosion resistance
Low coefficient of friction
Low Ra value
Non magnetic
Solderable deposit
Good ductility
Low stress deposit (10K psi vs 100K psi for hard Cr)"

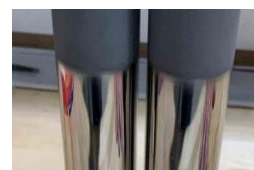


Advantages

Direct Replacement for hard chrome
No Special change to plating process
User Friendly Process
Nickel-Tungsten alloy (65-35) ratio
Hardness: 550HV as plated; 900+ annealed
High Abrasion Resistance
Low stress Deposit
Appearance: bright; not as bright as Chromium

Applications

Hydraulic and Pneumatic Piston Rods and Cylinders
Plastic and Rubber Rolls, Moulds, Dies, Dies, Screws
Automotive and Mechanical components
Bearing and Seal Surfaces
Sliding components
Press Tools and Punches
Print Cylinders and Plates
Food Machinery
Valves, Gates and Bodies
Mining Equipment
Timber and Paper Processing Equipment
Pumps Shafts and Rotos
Textile Components



Keywords

Hard chrome replacement ,Nickel tungsten, Chrome Free Coating, Eco Friendly Process, User Friendly Process, Chrome Plated Piston, Chrome Free Piston, Chrome Free Bearings, Corrosion resistant coatings, NiW - Duratech

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