

# Novoplate™ HS

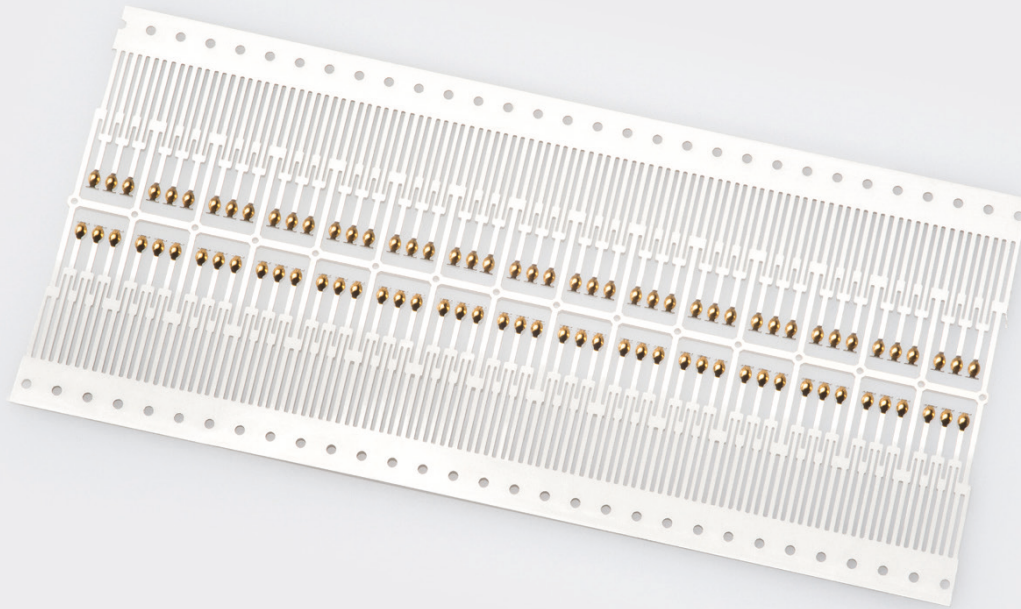
Electrolytic nickel phosphorous process



Electronics

Functional electronic coatings

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## High speed electrolytic nickel phosphorous process for perfect corrosion resistance

### Novoplate™ HS

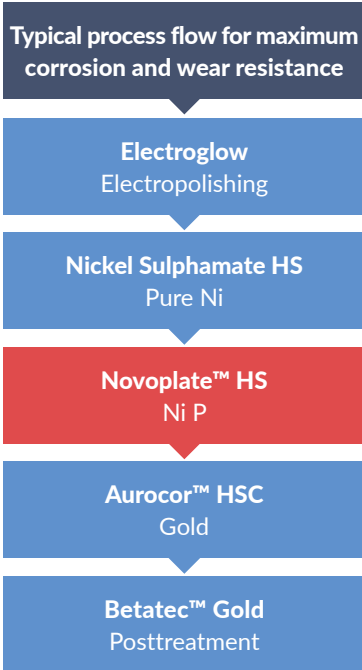
is your solution for a perfect corrosion resistance. Novoplate™ HS deposits a thin nickel layer with a defined and controllable amount of P. The P content can be adjusted in the range of 4-17 % depending on requirements. It reduces the amount of the following gold layer from 0.5  $\mu\text{m}$  down to 0.3  $\mu\text{m}$ .

It can either be used for high corrosion and wear resistance for connectors or as a final finish for thick Al wire bonding on lead frames.

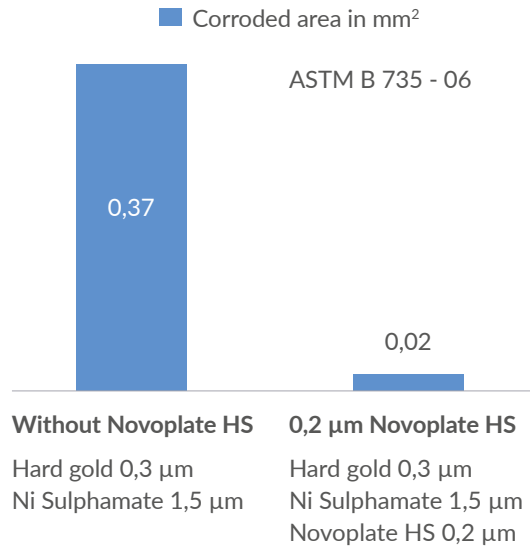
### Features and benefits

- Ammonia free and non toxic additives
- Hardness 500-600 HV0,2
- Solderable layer and thick Al wire (100-500  $\mu\text{m}$ ) bondable surface
- Morphology and thermal behavior like e'less Ni
- Applicable for R2R, rack and barrel plating lines
- Plating thickness of more than 100  $\mu\text{m}$  achievable

# Electrolytic nickel phosphorous process



## Nitric acid vapor corrosion test



**0,2 µm**  
NiP coating for perfect corrosion resistance

## Bonding test for thick Al wires

