

# Goldeneye Nickel BF

## Boric Acid Free Plating for Electronics



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## Nickel plating to meet the safety and sustainability requirements of today's manufacturing

Technic's introduction of Goldeneye Nickel BF has significantly altered the nickel plating industry with its use of a revolutionary new buffering agent that is completely free of all boron compounds. With several key advantages, compared to conventional sulfamate or sulfate electrolytes, Goldeneye Nickel BF raises the standard for reel-to-reel, rack, and barrel nickel plating – all from an environmentally friendly, safer chemistry.

Goldeneye Nickel BF allows electronics manufacturers who utilize nickel plating to stay one step ahead of the ever-changing regulatory environment around the world. In addition, Goldeneye Nickel Buffer BF allows for more responsible wastewater management, supporting critical sustainability efforts.

### Features

- Proprietary buffer material
- Completely free of all boron compounds
- Lower stress in the nickel deposit
- Easy to operate liquid form
- Easily analyzable
- Operates over a wide current density range
- Increased solution conductivity over standard Ni sulfate or Ni sulfamate processes
- Stable pH during plating

### Benefits

- Improved deposit properties
- No crystallization in the bath or on the equipment
- Superior thickness distribution
- Improved low current density coverage
- Reduced waste treatment costs
- Improved corrosion resistance compared to sulfate or sulfamate plating processes
- Meets the requirements of AMS-QQ-N-290B (Rev. 2009-07), Class 1, "SB"



# Goldeneye Nickel BF

## No more crystallization

Among the safety, environmental, and performance advantages of Goldeneye Nickel BF is its ability to operate without the formation of boric acid crystals in the bath and on the equipment.



Left:  
Formation of Boric Acid Crystals on reel-to-reel equipment. This can be a costly and time consuming challenge.

Right:  
Goldeneye Nickel BF is free of Boric Acid and therefore will not precipitate at room temperature.



## A stabilized pH

In the absence of any buffering agents, the pH of nickel plating solutions will increase during electrolysis aging. Goldeneye Nickel BF exhibits equivalent pH stability versus a control solution containing boric acid.

### pH Changes vs Buffer Concentrations

