About Technic
Technic is a world leader in precious metal plating. With over 50 years of experience in electronics, connector and decorative plating, Technic has developed specialty products for printed circuit board applications. While exceeding deposit requirements, the Technic Precious Metal products for PCB are specifically designed for compatibility with aqueous dry film, high throw, high speed as well as cost savings through better distribution and lower gold usage. Technic provides a full range of electrolytic nickel, soft and hard gold as well as palladium, rhodium, platinum, and silver.

Electrolytic Nickel
Techni Nickel S: Conventional sulfamate nickel. Good for military applications and for aspect ratios below 10:1. Nickel S will reduce slivering in full panel Nickel Gold product compared to a standard bright Nickel sulfate deposit.

Techni Nickel HT-2: Sulfate Nickel for high aspect ratio applications over 10:1 aspect ratio and holes sizes below 18 mils. Techni Nickel HT-2 will dramatically improve throwing power compared to sulfate or sulfamate chemistries.

Technic Test Vehicle:
Cross-section Data Technic HT-2 Nickel
- DC Plate, Standard Production plating Cell
- 15ASF (1.5 ASD)18 Minutes
- 100 Thousands (2.5mm) Thick PCB
- 10 Mil (0.25mm) Hole
- 0.100 Mil (2.5 microns) Min Ni in Center of the Hole
- 50% Average Throwing Power

High Speed Nickel Sulfate FFP: High speed process for plating sulfate nickel in an automatic tab plater. The deposit is low stress semi bright and ductile. This process can be used with soluble or insoluble anodes.
**Electrolytic Gold**

Oroscene 80RC: Hard gold process that can be used in high speed tab platers or in deep tank operations. The process has a high tolerance for contamination and provides excellent distribution. The deposit purity and low contact resistance makes it a perfect choice for touch contacts, slide contacts, as well as soldered connections.

- Deposit purity: >99.7%
- Hardness: 140 - 170 Knoop (25 gm load)
- Resistivity: <0.3 mOhm/cm
- Density: 17.5 - 18.5 gm/cm³

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**Technic 434 HS**

Designed to produce a Gold electrodeposit of 99.9+% purity for devices where high purity Gold deposits are required to meet wire bonding requirements. Deposits obtained from this system meet the requirements of Mil-G-45204C, Type III, Grade A.

- Deposit purity: >99.9%
- Hardness: 80 – 90 Knoop (25 gm load) as plated
- Resistivity: <0.3 mOhm/cm

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**Oroscene Solder Joint Strength vs Ni Concentration**

![Graph showing the relationship between solder joint strength and Ni concentration.](image)

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**Technic 434 HS 1 Mil Gold Wire Bond Pull Strength**

![Graph showing the wire bond pull strength for Technic 434 HS 1 Mil Gold.](image)