

Ultinal CNF 128

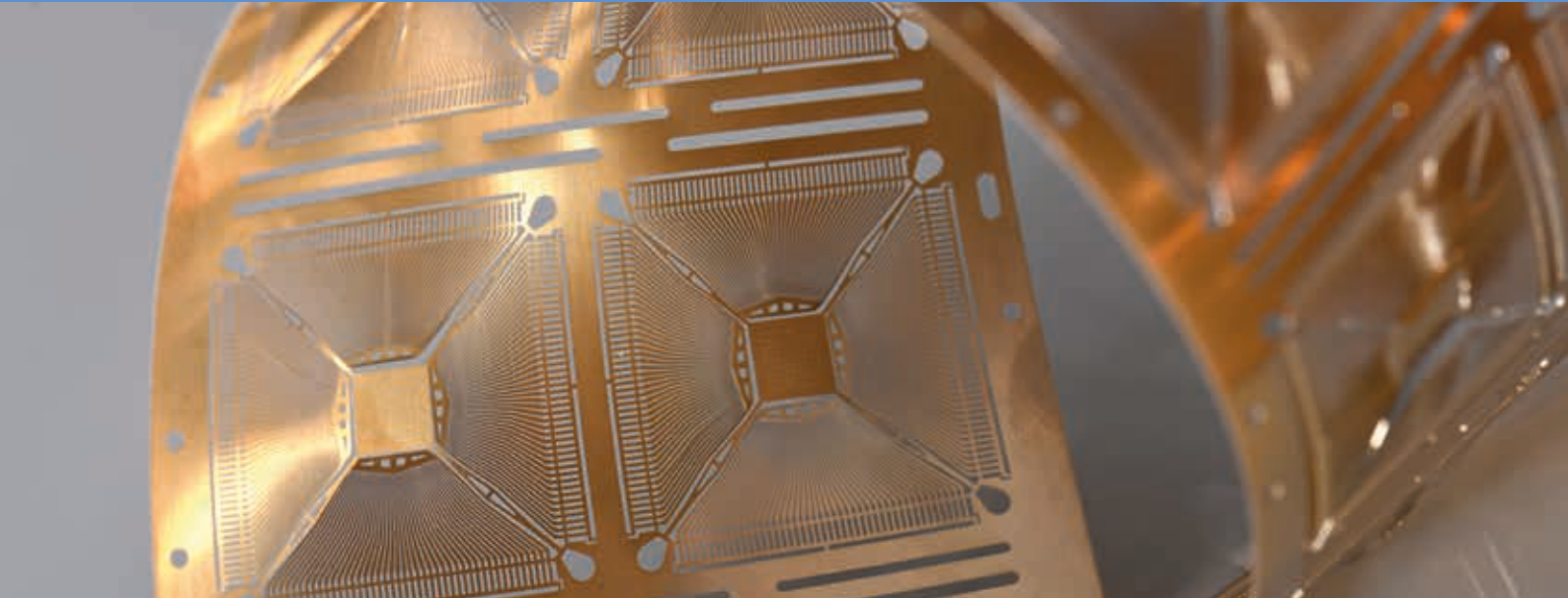
Cyanide-free copper



Electronics

Functional Electronic Coatings

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Eliminating the risk of cyanide

Base properties

Ultinal CNF 128 is a non-toxic, cyanide-free copper electrolyte that is an excellent replacement for cyanide-based copper electrolytes. Moreover, it can be used to deposit a well adhering copper layer onto aluminum after zincation without the need for an intermediate nickel layer. It can be used for both rack and drum applications. The copper layers deposited from the **Ultinal CNF 128** form an excellent substrate for a subsequent acidic copper, nickel, or tin coating. It has excellent and superior depth dispersion and hiding power, especially in the low current density range.

Features and benefits

- Alkaline cyanide-free electrolyte
- Eliminates potential health and environmental liability issues of cyanide
- No waste treatment of cyanide -> cost effective
- For Rack & Barrel
- Plates directly on steel, brass, high quality zinc casts and aluminum

Ultinal CNF 128 – Cyanide-free copper plating



Free of Cyanide

Deposit characteristics

Ultinal CNF 128 deposits uniform copper layers with a fine-grained, smooth texture that is dense and non-porous. At the same time, it ensures excellent bonding capabilities. Due to the nature of the copper layers, mechanical polishing is also possible, which achieves a high shine. In addition to the optical properties, the deposited copper layer is characterized by good thermal conductivity, electrical conductivity, and EMI shielding effects. The **Ultinal CNF 128** can also be used to coat decorative surfaces, buttons, rivets, and household items. Furthermore, an antique surface can be created by blackening or oxidizing.



Efficient wastewater treatment

Functions of additives

Ultinal CNF 128 contains three additives: **Ultinal CNF 128 Make Up**, **Ultinal CNF 128 pH Adjuster**, and **Ultinal CNF 128 Maintenance**. The **Ultinal CNF 128 pH Adjuster** ensures precise pH regulation and buffering, as well as a stable separation. The **Ultinal CNF 128 Maintenance** dissolves and complexes the copper from the anodes. It is also used to supplement drag-out losses. Continuous supplementation is necessary to maintain functionality and to deposit good-quality copper layers. The **Ultinal CNF 128 Make Up** is used to maintain the balance of the essential components within the working solution and thus ensure consistent separation performance.

