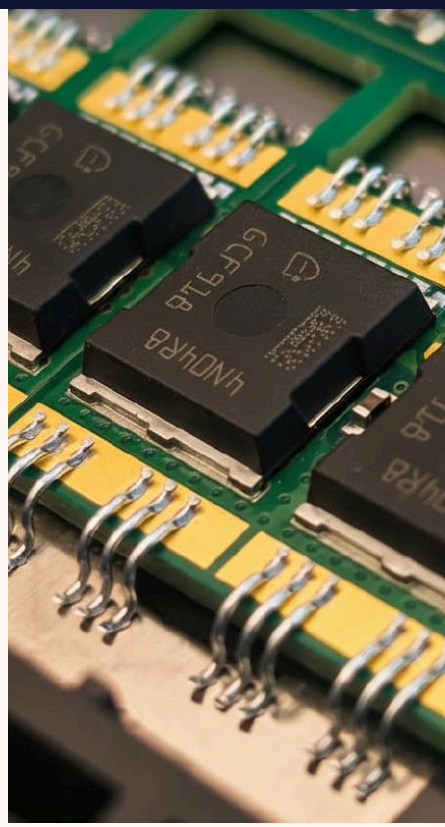
MICRON
COATINGS GROUP

NIPLATE® LINK
ELECTROLESS NICKEL FOR BUSBARS AND SOLDERABLE COMPONENTS



Niplate Link is an electroless nickel plating treatment, covered by a **patent application**, specifically designed for electrical and interconnection components such as **copper busbars, connectors and parts intended for soldering and brazing**.

The coating provides a **solderable**, **corrosion-resistant** and **long-term stable** surface, significantly reducing the risk of **surface oxidation** that could compromise joint quality.

Thanks to the high uniformity and strong adhesion of the deposited layer, Niplate Link improves the reliability of electrical connections in power distribution systems and reduces failures caused by joint defects.

It is ideal for busbars and electrical components used in electric vehicles, inverters, battery packs and power converters, where **connection reliability** and **long-term durability** are critical requirements.

In addition, due to its excellent **corrosion resistance**, it can also be used in **water-cooled circuits**, preserving surface passivation and protecting the base material.

Compared to traditional electroplated solutions, Niplate Link offers a repeatable, cost-effective process free of precious metals, optimized for **high-productivity industrial manufacturing**, particularly for **components with complex geometries**.

PROPRIETARY TECHNOLOGY

Niplate Link is a technology developed in-house by Micron, protected by a **patent application**, ensuring uniqueness and a strong **competitive advantage** in the e-mobility sector.

SOLDERABLE SURFACE

Coating engineered to maintain excellent solderability. Compatible with **tin-based and aluminum brazing alloys**.

CORROSION RESISTANCE AND DURABILITY

The alloy maintains a stable, oxide-free surface even after **long-term storage**, ensuring consistent solderability over time.

CHEMICAL AND CORROSION RESISTANCE

Excellent resistance to corrosion and **humid or saline environments**. Copper components withstand over **1000 hours in NSS testing (ISO 9227)** with coating thickness ≥ 5 µm.

HIGH PERFORMANCE IN E-MOBILITY

Ideal for **electric vehicle busbars**, **inverters (IGBT)** and **battery systems**: prevents the formation of brittle intermetallic compounds (e.g. Al-Cu) and enhances joint reliability.

UNIFORM THICKNESS

Uniform deposition even on **complex geometries**, without the edge thickness buildup typical of conventional electroplating processes.

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Rev. 29/07/2025

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TECHNICAL SPECIFICATIONS

COMPOSITION AND APPLICABLE STANDARDS

TYPICAL COMPOSITION	
NI	P
85-90%	8-13%
Ni-P alloy optimized for solderability and chemical resistance	

APPLICABLE TECHNICAL STANDARDS
ISO 4527
ASTM B733

MAIN APPLICATIONS

Busbars for electric vehicles and HV power distribution systems
Contacts and terminals for batteries and inverters
Copper components for power electronics and smart grids
Parts intended for soldering or brazing in e-mobility, railway and renewable energy sectors

COATING THICKNESS AND APPEARANCE

TYPICAL THICKNESS	TOLERANCE
5-15 µm	±2 µm
Bright metallic appearance, stainless-steel-like color.	

FUNCTIONAL PROPERTIES

SOLDERABILITY
Excellent solderability with conventional, induction and ultrasonic brazing processes using tin and aluminum alloys; consistent wetting behavior.
CORROSION RESISTANCE
Long-term maintenance of corrosion resistance. Solderable properties preserved even after several weeks of storage under standard conditions.
SALT SPRAY RESISTANCE
≥1000 hours in neutral salt spray on copper substrate (ISO 9227, 5 µm thickness, corroded surface <1%).
CHEMICAL COMPATIBILITY
Excellent resistance in saline and humid environments; compatible with hydrocarbons, technical oils and alcohols. Not suitable for oxidizing acids and concentrated bases.

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