

# Clad Metals

## Busbars

Busbars depend on the durability and reliability of the material properties. In practice, clad solutions based on Aluminum have proven effects. Above all, more and more composites made of Copper and Aluminum are gaining acceptance. The positive properties of the electrically highly conductive Copper can be optimally combined with the low weight of Aluminum. There is a very good adhesion between Aluminum and Copper, optimal thermal conductivity plus ease of assembly. Other clad solutions such as Nickel-Aluminum-Nickel are available for lower ampacity requirements.

## Surface finishing

Tin, Nickel or Silver coating as surface options create many functional advantages. Tin is suitable as a top layer due to its formability and the ability to displace tin oxides on contact surfaces. It also increases corrosion resistance and can be soldered and welded.

Silver is characterized by high electrical and thermal conductivity and is more heat-resistant than tin.

Nickel coatings improve the performance of the composite material, especially when the material is exposed to special environmental conditions. It is characterized by high resistance to corrosion and wear.

## Our cladding solutions



**Copper  
Aluminum  
Copper**



**Copper  
Aluminum**



**Nickel  
Aluminum  
Nickel**

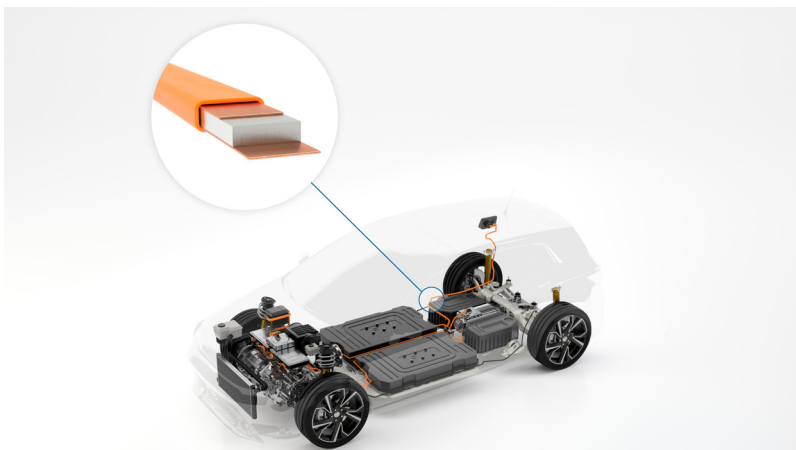


**Nickel  
Aluminum**

Other materials on request

## Advantages

- › Weight saving of at least 60% compared to pure Copper
- › No contact resistance between Aluminum and Copper
- › Maximum freedom of design
- › Optimized heat transfer
- › Surface finishing possible
- › Thermal short-circuit strength
- › Long-term stability
- › No process changes required in further processing
- › Simplified assembly due to lower weight and greater flexibility
- › Optimized set and creep behavior
- › Recyclable



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