

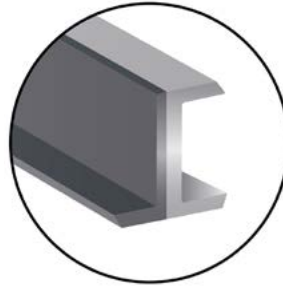
RailClad™ for the Train Industry

DESIGN

A RailClad™ structural transition joint is a multi-metal product manufactured by a proprietary solid-state welding process. Employing conventional welding techniques, RailClad is an intermediate piece to enable a welded connection between alloyed aluminum and steel structures. As an alternate to bolting or riveting, RailClad simplifies manufacturing processes and delivers greater reliability with a bond that prevents galvanic corrosion.

STRUCTURAL TRANSITION JOINT

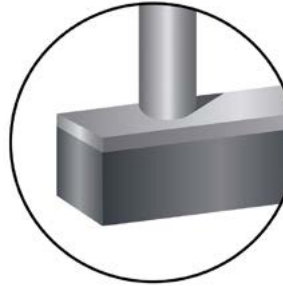
- Hybrid profiles allow welding aluminum extruded panels to steel chassis



Fully welded carbody designs now involve more than one metal. When structural transition joints are used to replace fasteners, assembly time is reduced & maintenance issues are nonexistent.

OTHER APPLICATIONS

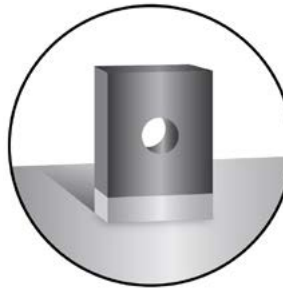
- Weld steel hardware components on aluminium structures
- Weld aluminium equipment on steel carbody



When engineers choose to design with different metals for equipment and various structural components, RailClad is an ideal solution – safety, durability, corrosion resistance, cost.

GROUND LATCH

- Grounding latches for railway vehicles allow welding stainless steel to aluminium roof
- Combination 316L+Ti+Al1050



This design addresses corrosion issues compared to tin plated latches. The thin titanium interlayer allows for extreme durability of the bond interface.

QUALIFICATION

In Europe, RailClad products are qualified as welded products according to EN 3834-2:2005 and to EN 15085 – Certification Level CL1 (welding of railway vehicles and components).

RAILCLAD FOR TRAIN MANUFACTURING

- Facilitates weight savings
- Enables faster production
- Provides unrivaled corrosion resistance
- Reduces lifetime costs

EXPLORE ADDITIONAL RESOURCES

White Paper

Click to read International Journal of Fatigue: Fatigue Properties of Steel to Aluminum Transition Joints

Webinar

Contact us today to schedule a customized 1-1 webinar for your team: sales@nobelclad.com