



RailClad™ Structural Transition Joints for the Train Industry

RailClad™ transition joints are commonly used to make a welded and maintenance free connection between alloyed aluminium components and steel structures in the train industry.

DESIGN

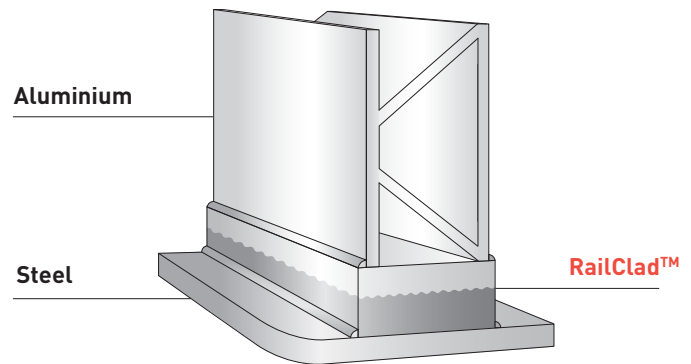
- As it allows a traditional welding of dissimilar metals, RailClad™ is typically an alternate solution to bolting and riveting.
- Different shapes are possible: round, cylinders, square, beams, long profiles up to 6 m.

PRODUCTS

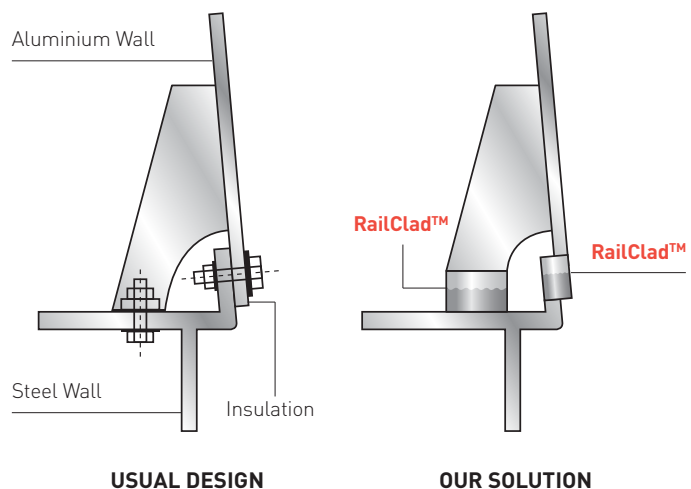
As a world leader in explosion welding for more than 50 years, NobelClad offers technical support and a wide range of metal combinations, which shall be specially defined and qualified at early design stage.

QUALIFICATION

Existing 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).



A transition joint is a bi-metal product used for welding of non-weldable structures



INCREASING STRENGTH

- Explosion welded RailClad™ exhibits high strength and 100% welded surface.

FIGHTING CORROSION

- A thin corrosion barrier (Ti or Ni) can be welded to Aluminium alloys in order to avoid galvanic or corrosion issues.
- Welded structures are water tight solutions (no crevice corrosion).

SAVING WEIGHT

- The use of bi-metal structures (Aluminium, Steel) in place of massive steel designs improves total weight.

REDUCING COSTS

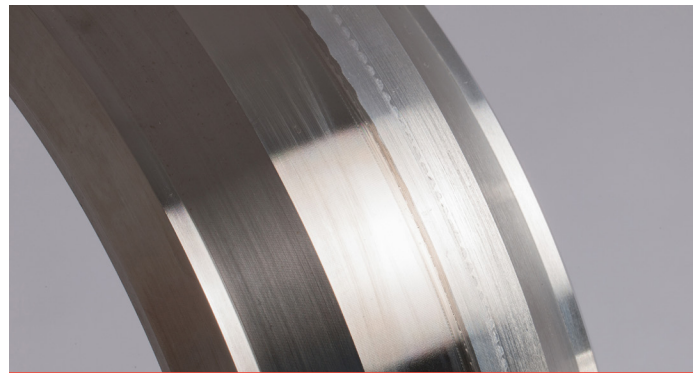
- Welding RailClad™ can be faster and cheaper than riveting or bolting.
- There is no maintenance on welded structures and lifetime is extended.

FABRICATION

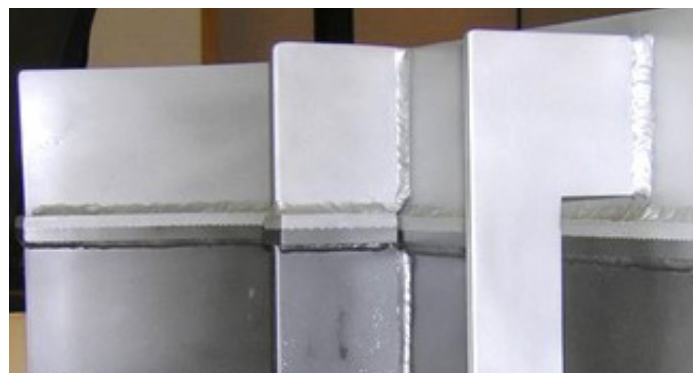
- RailClad™ can be cut by sawing or water jet. It can also be machined, drilled, bent or painted.
- Different methods may be used for the welding of RailClad™ into the trains structure.
- Depending on the metal combination, special requirements and temperature limitations may be advised by our technical department.



Wide range of metal sizes and combinations



Finished products



Reliable performance