

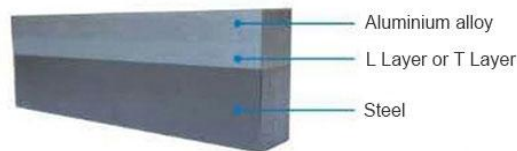
## Aluminum Clad Steel Plate

### What is Aluminum Clad Steel?

Aluminum clad steel is a composite material where a layer of aluminum is bonded to a steel core by explosive welding.

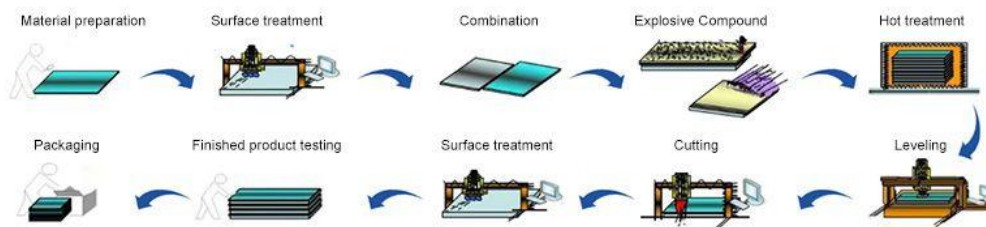
This process creates a material that combines the high tensile strength of steel with the corrosion resistance of aluminum.

### Structure of Aluminum Clad Steel:



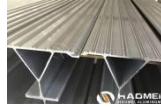
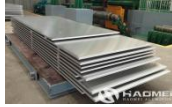
### Processing of Aluminum Clad Steel Plate:

#### Explosive Welding Production Process



### Specification of Aluminum Steel Clad Plate:

Types of products	Main materials	Product specifications (mm)	Product standard	Application area
Aluminum /steel clad plate	1A97,1A93,1A90,1A85,1070,1060,5083 Q235B.CCSB.Q245R.Q345R 15CrMoR,16Mn,20MnMo,15CrMo 109MnNiDR,16MnD,09MnNiD	1-14/6-80 x <1000x<4000	GBT 8546-2007	Electrolytic aluminum, transition joints, nava vessels,aerospace,instrumentation,cryopenic engineering, etc



## Features of Aluminum Steel Clad Plate:

### - Light weight:

The weight of the aluminum steel clad plate is only about 1/3 of the traditional pure aluminum plate, so it can greatly reduce the load of the building and reduce the structural cost.

### - Corrosion resistance:

The surface of the aluminum steel clad plate has good corrosion resistance, which can effectively prevent the erosion of buildings by corrosive gases such as acid rain and salt spray.

### - High strength:

Aluminum steel clad plates have very high strength and can be made into various structural parts or parts with complex shapes, uneven thickness and large loads.

### - High temperature resistance:

Aluminum steel clad plates can withstand high temperatures up to 1000 ° C, so they are very useful in many high temperature applications.

### - Wear resistance:

The wear resistance of aluminum steel clad plates is very good, it can effectively reduce friction, reduce wear and prolong the service life of buildings.

### - Fatigue resistance:

Due to the low elastic modulus and good toughness (elongation greater than 25%) of the aluminum/steel clad plate, it has good shock resistance and has a good absorption effect on impact loads.

## Applications of Aluminum Steel Clad Plate:

Aluminum steel clad plates have been widely used in construction, aviation, transportation, electronics, medical and other fields. Specific applications include:

### - Construction:

Aluminum steel clad plates can be used for building exterior walls, interior partitions, stair railings, door and window frames, etc., due to their light weight, corrosion resistance, high strength, high temperature resistance, wear resistance, fatigue resistance, and good self-lubricating properties. And other advantages, can improve the safety, comfort and durability of buildings.

### - Aviation:

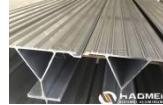
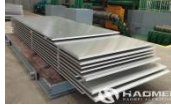
Aluminum steel clad plates are one of the important structural materials for aircraft, rockets and other aircraft. Due to their lightness, high strength, high temperature resistance, and corrosion resistance, they can improve the load capacity and safety of aircraft.

### - Transportation:

Aluminum/steel clad plates can be used to manufacture automobile bodies, railway carriages, ship decks, rolling stock, aviation equipment, etc. Due to their light weight, high strength, and corrosion resistance, they can improve the load-carrying capacity and safety.

### - Medical aspects:

Aluminum steel clad plates can be used to manufacture medical device shells, such as medical beds, medical carts, operating tables, etc. Due to their light weight, high strength, and corrosion



resistance, they can improve the service life and safety.

## Certificate of Aluminum Steel Clad Plate:

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Marine & Offshore

Certificate number: 79585/A0 BV  
File number: MAT 150420-2025  
Product code: 90711

This certificate is not valid when presented without the full annexed schedule composed of 7 sections

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**APPROVAL CERTIFICATE for MATERIALS**

This certificate is issued to  
**Zhengzhou Haomei Industrial Co.,Ltd**  
 ZHENGZHOU-CHINA

for the type of product  
**EXPLOSION BONDED TRANSITION JOINTS (STEEL/ALUMINIUM)**  
 Explosion bonded transition joints(Steel/Aluminium) 5083/1060/B

**Requirements:**  
 Bureau Veritas Rules for the Classification of Steel Ships

For information only

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

**This certificate will expire on: 17 Feb 2030**

For Bureau Veritas Marine & Offshore,  
 At BV SHANGHAI, on 17 Feb 2025,  
 Jennifer Zhang

This certificate was created electronically and is valid without signature



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## FAQs of Aluminum Steel Clad Plate:

Q:What is aluminum clad steel?

A:Aluminum clad steel wire, often abbreviated as AW or AS or AC, is an electrical conductor consisting of an inner steel core and an outer aluminum cladding. Aluminum clad steel wire is a bimetallic material in which aluminum is continuously and evenly coated on a steel core.

Q:What does stainless steel aluminum clad mean?

A:What does "clad" mean? Cladding is a technique for making cookware. It involves layering sheets of metal and bonding them together. The most common is sandwiching sheets of aluminum (or copper) between sheets of stainless steel.

Q:What is clad steel plate?

A:Clad steel plates are made by joining various metals such as stainless steel and aluminum, titanium and aluminum, etc., depending on the application. We have successfully developed wide-strip roll-joining technology and established a system for mass production of high-quality clad products.