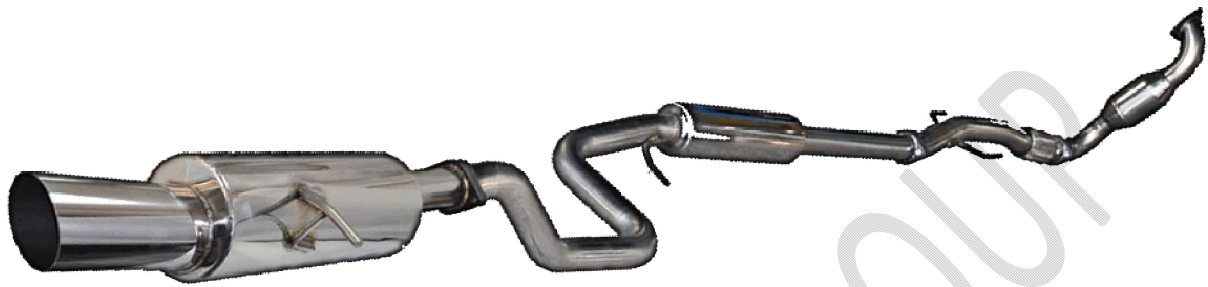




## **ALUMINIZED TYPE 1 STEEL**



### **PRODUCT DATA**

**Aluminized Steel Type 1** was developed for providing more structural durability and a high yield strength in highly corrosive environments. Aluminized steel maintains the strength of high-alloy steel, but at a fraction of the cost. Aluminized steel is cheaper to produce than high-alloy steels and thus is a preferred material for manufacturing automobile and motorcycle exhaust gas systems.

**Aluminized Steel Type 1** is continuously hot dip coated on both sides with an aluminum/silicon coating. Hot-dip coated with a thin layer of aluminium / silicon alloy containing 5% to 11% silicon to promote better adherence. It is intended principally for heat resisting applications and also for uses where corrosion resistance and heat are involved.

Aluminized Steel Type 1

### **PRODUCT FEATURES**

#### **CORROSION RESISTANCE**

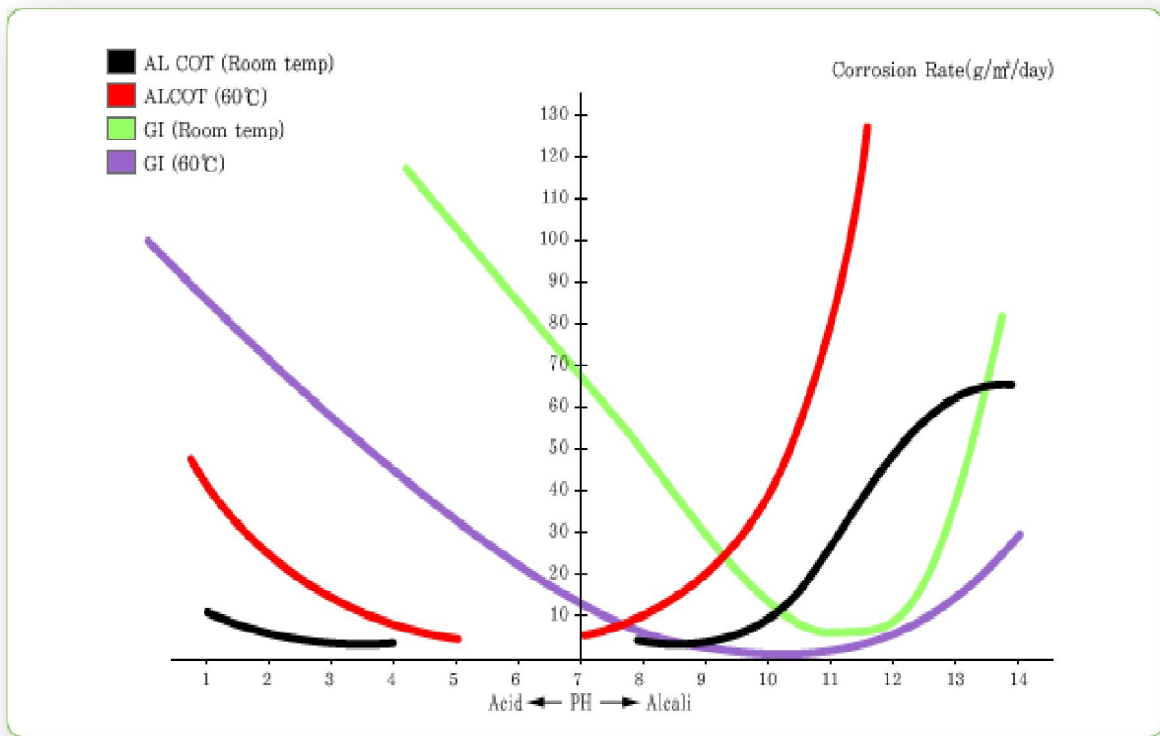
Aluminized Steel Type 1 has superior performance compared to galvalume or zinc coated steel. Aluminized steel has slowly started to convert bakery trays which were previously made by galvanized or galvalume steel as it does not contain lead which is poisonous.



# DOSHI STEEL GROUP

## HIGH TEMPERATURE PROPERTIES & HEAT REFLECTIVITY

Aluminized steel Type 1 show excellent high reflectivity characteristics, At temperatures up to 842 °C, aluminized steel reflects up to 80% of heat projected onto it. Aluminized steel has the ability to maintain its strength at temperatures up to 677 °C.



## FORMABILITY

Aluminized Steel Type 1 can be used to produce parts containing simple bends to parts with deep drawing requirements.

## COATING CHARACTERISTICS

Aluminized steel Type 1 coating contains approximately 91% aluminum & 9% silicon that is metallurgically bonded to the low-carbon steel substrate. The hot dip coating process assures a tightly adherent, uniform coating on both sides of the product.

## SURFACE PROTECTION AND LUBRICATION

DOSHI STEEL GROUP supplies Aluminized Steel Type 1 with protective Rust preventative oil. A dry film lubricant can also be supplied by further processing Aluminized Steel Type 1 through a coil coating

## Facility

Surface protection over Aluminized Steel Type 1 can be further enhanced at DOSHI STEEL GROUP processing facility.



# DOSHI STEEL GROUP

## FORMABILITY AND MECHANICAL PROPERTIES

One of the priorities At DOSHI STEEL GROUP is to meet customer's requirement. To meet customer' requirement of Aluminized Steel Type 1, material undergoes various stages such as Tight control over chemical composition, hot rolling parameters, amount of cold reduction, in-line annealing time and temperature, and the amount of additional processing allows the production of high quality Aluminized Steel Type 1.

a. Aluminized Steel - COMMERCIAL Grade

Aluminized Steel - COMMERCIAL Grade are produced from aluminum-killed continuously cast slabs. Unless otherwise specified, have a carbon content from 0.02 – 0.15%C.

b. Aluminized Steel - DEEP DRAWING Grade

Aluminized Steel - Deep Drawing Grade has controlled carbon content less than 0.06%C which can be used in more stringent forming applications.

c. Aluminized Steel - EXTRA DEEP DRAWING Grade

Aluminized Steel - Extra Deep Drawing Grade or Extra Deep Drawing Plus Grade is used in most ductile and demanding forming applications.

These EDD grade has the lowest carbon content available as DOSHI STEEL GROUP.

d. Aluminized Steel Type 1 is also produced with yield strengths up to 50 ksi. (340 MPa).

e. Aluminized Steel Type 1 can also be specified as Drawing Quality High Temperature for applications where alloying of the coating can be a concern.



## PAINTABILITY & WELDABILITY

Aluminized Steel Type 1 should be cleaned with a mild alkaline cleaner to remove dirt and oil. After various processes, mild abrasion prior to pretreating may also be used to enhance mechanical bonding of the paint

A variety of welding processes can be used to join Aluminized Steel Type 1. Various welding processes are compatible with Aluminized Steel.

## ALUMINIZED STEEL END APPLICATION/ USE

Possible end uses are mufflers, furnaces, ovens, ranges, heaters, water heaters, fireplaces, and baking pans. Aluminized steel TYPE 1 can withstand 550 °C with almost no change in the base material. But due to silicon content it develops black spot. Type 1 is also commonly found in industrial products

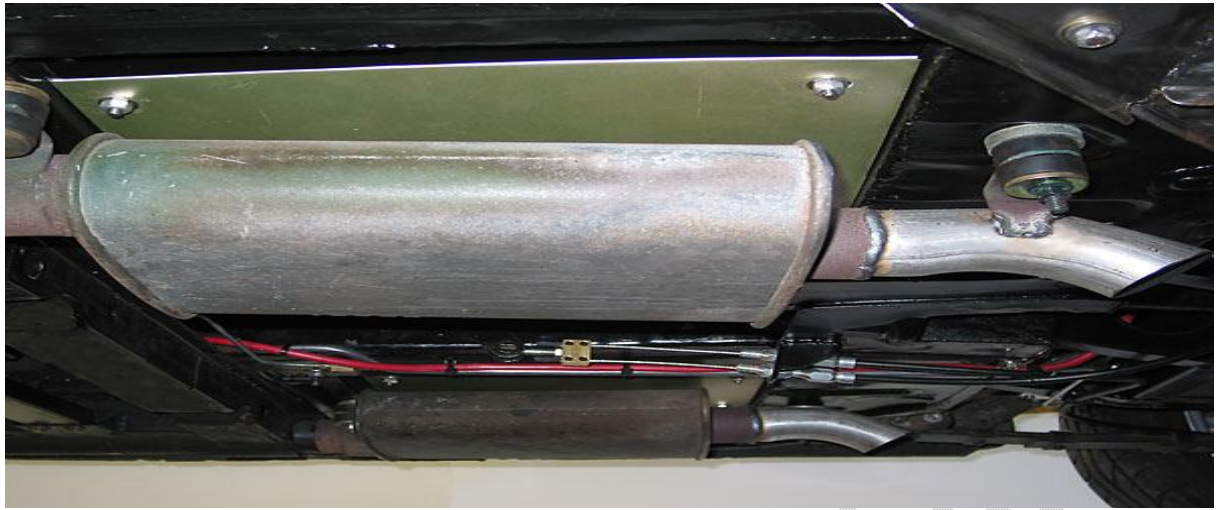
## SPECIFICATIONS

Aluminized Steel Type 1 conforms to ASTM A463.

**PLEASE SPEAK TO OUR REPRESENTATIVE AT DOSHI STEEL GROUP FOR PROPERTIES  
– STANDARD GRADES & HIGHER STRENGTH GRADES**



# DOSHI STEEL GROUP



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