



# CASCADIA METALS

## 55% ALUMINUM-ZINC COATED STEEL

Cascadia Metals offers a wide selection of 55% Aluminum-Zinc Alloy Coated Steel products. 55% Aluminum-Zinc Alloy Coated Steel is cold-rolled carbon steel with a metallic coating composed of Aluminum (55%), Zinc (43.4%) and Silicon (1.6%). The generic product reference is 55% Aluminum-Zinc Alloy Coated Steel, although there are trademarked names for the same product such as Galvalume®.

55% Aluminum-Zinc Alloy Coated Steel's coating out-performs galvanized steel at a rate of 2 - 6 times. The protective mechanisms for 55% Aluminum-Zinc Alloy Coated Steel are such that the zinc coating initially protects the steel but will gradually corrode away over time and the protective effect will be lost. Once the zinc coating has been sacrificed due to corrosion, the aluminum component of the metallic coating persists insuring corrosion resistance remains in effect for a substantially longer period of time.

55% Aluminum-Zinc Alloy Coated Steel is a favorite of architects due to its eye-catching aesthetics, long-lasting performance, design flexibility and the vast number of potential end-use applications.

### Product Benefits

55% Aluminum-Zinc Alloy Coated Steel offers a number of benefits as compared to other construction products. These benefits include...

**Durability** – the aluminum-zinc metallic coating forms a permanently bonded, tough, sacrificial coating that protects the steel from corrosion in most end-use applications.

**Severe Conditions** – 55% Aluminum-Zinc Alloy Coated Steel has superior long-term corrosion resistance in most atmospheric conditions. This is achieved through the combination of the sacrificial protection of the zinc and the barrier protection of the aluminum.



**Sustainability** – 55% Aluminum-Zinc Alloy Coated Steel is 100% recyclable (can be melted back down for reuse) at the end of life which means less construction product going in landfills. In addition, its long service-life means the product will last longer without need for replacement.

**Flexibility** – can be formed into a wide variety of end-use applications without sacrifice to the metallic coating. This design flexibility allows architects to accomplish the look they desire for any project.

**Low Maintenance** – provides an easy to clean surface that is virtually maintenance free.

## ASTM Specifications

ASTM Designation A792 outlines the general requirements for hot-dipped 55% Aluminum-Zinc Alloy Coated Steel. Included in this specification are steel chemistry requirements, typical mechanical properties of various metallurgical grades, and the coating weight requirements for the different coating designations.



## Coating Thickness

Coating thickness is measured as the coating weight in ounces per square foot. For example, a coating designation of AZ50 specifies there is a minimum coating weight of 0.50 ounces per square foot on both sides of the sheet. The most common coating thicknesses are AZ35, AZ50 and AZ55.

## Surface Treatments

**Chemical Treatment** - A chemical surface treatment is available which consists of a thin, invisible, corrosion inhibiting, inorganic, chemical film applied on both sides of the metallic coated surface. This film is applied at the metallic coating line by dipping the steel strip into a solution of corrosion inhibiting chemicals. The chemically treated surface is much more resistant to “white rust” - the corrosion of zinc that typically occurs in humid conditions during storage or transportation.

**Resin Coating** - A resin coating is also available on our 55% Aluminum-Zinc Alloy Coated Steel. This water-based resin coating is applied to both sides of the strip regardless of whether chemical-treatment is part of the resin package or pre-applied. The resin coating is formulated to resist finger printing and scuffing during product handling, improves resistance to wet-stack stains occurring during transport and storage, and virtually eliminates the need for roll forming lubricants.

## End-Use Applications

55% Aluminum-Zinc Alloy Coated Steel products are found in a wide variety of applications requiring long-term, maintenance-free corrosion protection. End-use applications well suited for 55% Aluminum-Zinc Alloy Coated Steel include roofing and wall panel applications, metal buildings, fascia and other architectural applications.



Contact your Cascadia Metals Sales Representative today to learn how 55% Aluminum-Zinc Alloy Coated Steel can satisfy your material needs.

Galvalume® is a registered trademark of BIEC International, Inc.