

## Galvannealed Steel Facts

Galvannealed steel is coated with a Zinc-Iron Alloy by a process known, in the metallurgical technology, as the Hot-Dip Process. This process consists of passing cold reduced sheet steel in coil form continuously through a pot of molten zinc. As the steel leaves the pot, the amount of coating allowed to remain on the sheet is controlled by coating rolls which are used to establish minimum coating weights in accordance to ASTM Designation A525/A525M. The zinc coating is what protects the steel against corrosion. This protection acts in two ways. The zinc acts as a shield between the base steel and the atmosphere and when the base steel is exposed, such as at sheared or blanked edges, the zinc acts as a galvanic protector sacrificing itself in the presence of corrosive elements. The coating structure consists of a layer of zinc superimposed on a thin alloys layer consisting of both iron and zinc. The solidification of the zinc layer results from crystallization of the bath metal.

Galvannealed, when used without further treatment, offers the most economical corrosion protection for steel in many environments. The coating left on the steel is dull gray in color. It has no spangle and, after proper cleaning, is well suited for painting. The zinc coating makes an excellent base on which to develop a paint system.

### Basic Product Description

Carbon Sheet Steel with a zinc coating both sides that has been heat treated to form an iron-zinc alloy layer underneath the zinc and on top of steel.

### Galvannealed Steel Ratings Chart

Component	Rating (1-5)	Description
Appearance	4 - Good	Light Grey Matte Finish. Best use is for painted applications.
Paint	5 - Excellent	Can be painted in the as shipped condition. Some applications may need a primer before painting.
Corrosion	5 - Excellent	For long-lasting corrosion protection when painted properly.
Forming	4 - Good	Forms similar to hot dipped galvanized however, the iron-zinc alloy may powder on the compression side when severely formed.
Solder	4 - Good	Need good fluxing agent.