

Q & A for Using Galvanized or Galvalume Steel for Substrate both Bare and Painted

I read that Bare Galvalume panel has a warranty. How long of a period is it and what does it cover? Does Bare Galvanized panel have a warranty?

Bare Galvalume panel is typically warranted under exposure to normal atmospheric conditions for a period of 20 – 25 years, depending on the producer or given manufacturer. This warranty is basically for perforation (rust through) failure, it is not for edge rust or rust creeping on the edges. Bare Galvanized on the other hand does not have such a warranty. The true reality is the paint warranty voids any metallic coating warranty and becomes “The Warranty” in force.

I understand Bare or Painted Galvalume Panels will edge rust right away. How much will the edge rust? Does Bare or Painted Galvanized also rust?

Because of the nature of the zinc and aluminum coating in Galvalume substrate, Bare and Painted Galvalume panels will show rust around the edge of the panel almost immediately. This edge rust should initially be limited to the edge only, as once the rust comes in contact with the aluminum in the coating it is slowed dramatically. However rust over time will slowly continue to rust further into or on to the sheet and of course bleed into the painted surface in time.

Galvanized substrate material on the other hand has a draw down of the zinc coating giving some protection to the cut edge against rust for a period of years before edge rust appears. Over time, Bare Galvanized and Painted Galvanized panel will continue to slowly rust once the rust process starts.

Which panel is better to use with animal confinement or agricultural use?

Neither Galvanized nor Galvalume substrate is warranted to be used, in or around animal confinement or agriculture. Bare Galvalume and Painted Galvalume panels will very rapidly deteriorate when exposed to the corrosive agents of animal confinement. Bare Galvanized and Painted Galvanized panels will far outlast Bare Galvalume or Painted Galvalume panels in this type of environment.

Which panel is better to use in a non-agricultural general use application?

Bare Galvalume and Painted Galvalume panels have an outstanding corrosion resistance in a wide variety of general environments, including industrial, marine and severe marine environments. For general use, Bare Galvalume and Painted Galvalume panels have proven to be very durable. In certain applications, the relative corrosion rates of materials change.

I have heard Galvalume should not be used on, in, or around concrete or mortar. Why would this be a problem?

Concrete and mortar are highly alkaline environments. Bare Galvalume and Painted Galvalume sheets suffer rapid corrosion when in contact with mortar and concrete. Bare Galvanized and Painted Galvanized perform better in this type of environment.

What difference does the thickness of the panel make?

The basic and correct response would easily be, the thicker the panel, the sturdier it will be and the longer it will last. To qualify as 29 Ga. Painted Panel, the thickness should be a minimum of .015 before paint. The recommended and desired thickness for 29 Ga. Painted Panel after painting is .0165 - .017. In an effort to make their product cheaper, some manufacturers have been using substrate with a .014 thickness before painting, reaching a thickness of only .015 - .0155 after paint. The difference in a manufacturer starting with a .0142 substrate thickness (used by many current roll formers at this time) and one that uses .0155-substrate thickness (optimal thickness used by only a very few quality roll formers) is 9.1% more steel in the thicker panel. This is very important to the customer when comparing the cost of panels and manufacturers.

How important is the paint on painted panels?

The paint used on either Galvalume or Galvanized panel substrate is actually the very important as it is the entire warranty of the panel product. Paints used on panels have progressed from a single coat straight polyester paint system (which carried a five (5) year warranty) in the early years to the third generation siliconized polyester coatings (which carry 30 years plus warranties) used today. Current pre-treatments and primers along with superior paint coating has increased product warranties dramatically. The past few years have seen some panel manufacturers bring back the straight polyester paint coating in an effort to offer a “cheaper product”. Many people only ask if there is a warranty not how many years the warranty lasts, and most people do not check to make sure that they are not getting the inferior straight polyester system. Straight polyester should really not be used for metal roofing and siding in today’s market. If there is a dramatic difference in the price of two painted panels, the type of paint should be suspect.

What is “Cool Roof” paint?

Some of the newest paint coatings meet the Energy Star reflectivity requirements to reduce to cool down buildings and save energy. Panel manufacturers that offer “Cool Roof” panels are offering the most durable superior coating in existence at this time for panels. The painted panels are put through vigorous testing process and exposure tests before receiving the Energy Star approval. Certain areas of the country are now specifying minimum solar reflective and putting it into the construction codes for both residential steep slope and low slope commercial work. It is becoming more and more the obvious product of choice to meet these building codes in metal roofing.

