

***Promising a peach,
but delivering a lemon?***

Visually metal roofing looks the same. But there are significant differences in the specifications that will effect the product quality.



The best way to gain customer trust is the essential skill of product knowledge.



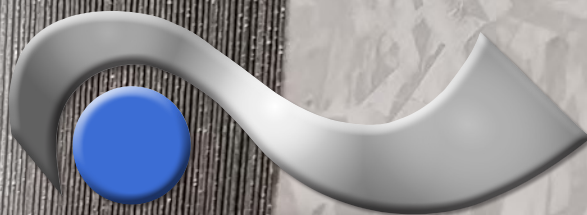
***Don't want to
deliver a lemon?***

Follow these steps to gain an understanding of proper zinc coating weights and specifications, and to help ensure ideal service life and quality of the steel products:

1. **Do your research.** To get the most out of your painted steel, it is important to put education before all else. Be aware that multiple coating weights exist, and each one is best suited to certain environments and applications.
2. **Talk to your supplier.** Your supplier should know "every detail" of the steel they provide. From the coating weight to the chemical makeup to common end use applications, the supplier can guide and advise for best practices and usage to ensure optimal results.
3. **Consider testing.** If there is any doubt or question as to whether or not a product, structure or component is the right coating weight, there are spot tests or lab surveys that can be conducted to verify the material. Once the correct coating weight is determined, testing can confirm that the galvanized steel, in fact, is the appropriate material.

METAL ROOFING PRODUCT KNOWLEDGE

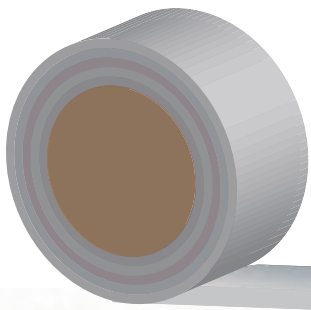
YODER METAL



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This is a quick reference, educational guide to metal roofing components. Increase your product knowledge to accurately and confidently match the correct product to your customer's needs. Review the questions in this guide to gain understanding on the roofing products you sell.





What is gauge or thickness?

The gauge chart is a rough measurement indicator of the thickness of the steel.

ASK: What is the steel thickness before paint?

Thicker is better.



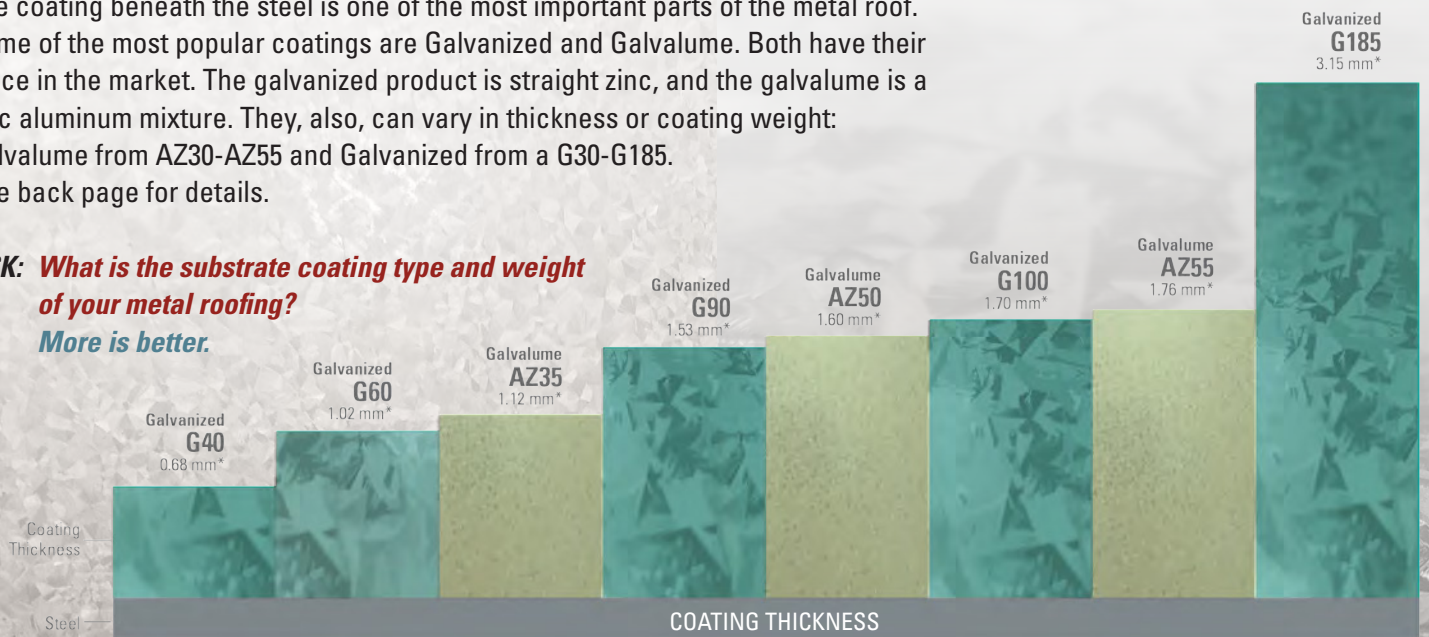
What is galvanic substrate coating?

The coating beneath the steel is one of the most important parts of the metal roof. Some of the most popular coatings are Galvanized and Galvalume. Both have their place in the market. The galvanized product is straight zinc, and the galvalume is a zinc aluminum mixture. They, also, can vary in thickness or coating weight: Galvalume from AZ30-AZ55 and Galvanized from a G30-G185.

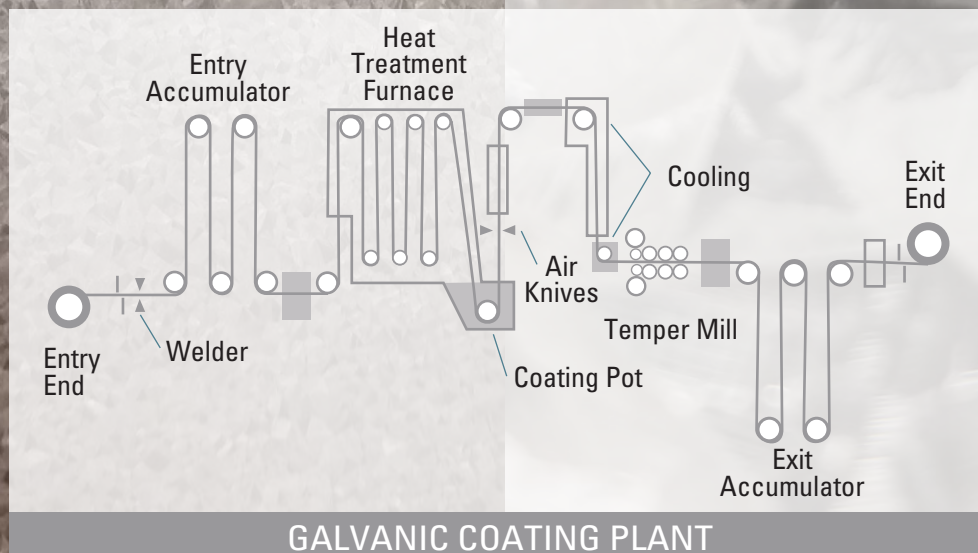
See back page for details.

ASK: What is the substrate coating type and weight of your metal roofing?

More is better.



*Total minimum thickness for both sides of the substrate





What are paint systems?

There are three main paint systems in the metal roofing industry:

- #1 **Polyester** paint systems are used for most interior or 10 year panels.
- #2 **Silicone -Modified Polyester** is the most widely used 40 year or lifetime paint system in the industry.
- #3 **Fluoropon 70% PVDF** or **Kynar** system has the best fade rating in the industry and is used on most commercial high-rise buildings.

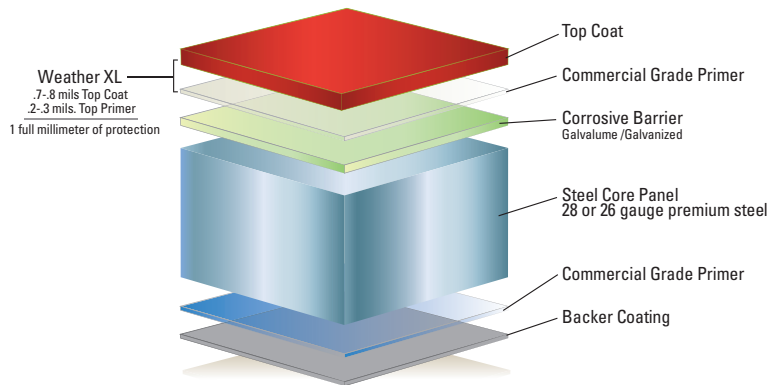
ASK: What “type” of paint system is my metal roof?

What is fading and chalking?

“Fading” refers to the loss of color, and is measured in Delta E Hunter Units ASTM D2244.

“Chalking” is a white haze that may appear on the surface through the natural weathering process. Chalking is measured by rubbing a fabric on the surface of the paint to determine the amount of chalk that can be removed according to ASTM D-4214.

ASK: What are the fading and chalking ratings of the product?
For fading, the lower the better.
For chalking, the higher the better.

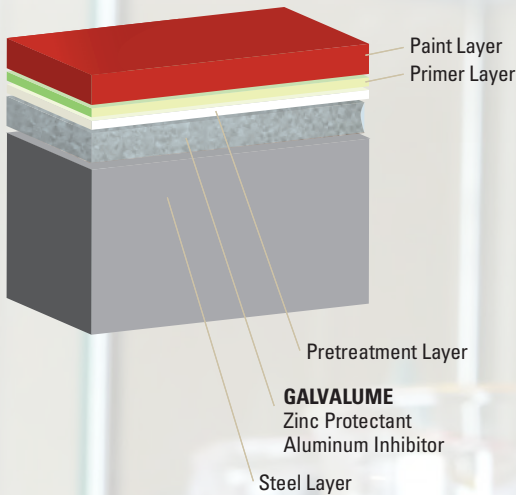


| | 1 Hunter Unit | 2 Hunter Unit | 3 Hunter Unit | 4 Hunter Unit | 5 Hunter Unit | 6 Hunter Unit | 7 Hunter Unit |
|----------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|
| Brand New Roof | FADE | FADE | FADE | FADE | FADE | FADE | FADE |
| | After 7 Years | | After 15 Years | | After 22 Years | | After 30 Years |

COATING DETAILS

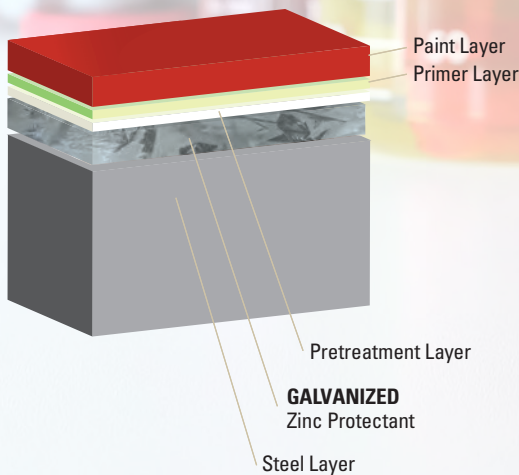
GALVALUME COATINGS

- Superior long term protection. After a small amount of initial edge-rust, has up to two times the protection of comparable options.
- 20 year rust-through warranty for painted materials; 25 year for non-painted.



GALVANIZED COATINGS

- Best protection short term: Shows little or no edge-rust for the first 10 years
- Long-time industry standard



Rust Protection

The coating beneath the steel is one of the most important parts of the metal roof. Some of the most popular coatings are galvanized and galvalume. The galvanized product is straight zinc, and the galvalume is a zinc-aluminum mixture. Both have their place in the market.

Yoder Metal provides you with a Galvanic Substrate coating that will stand the test of time. As our charts indicate below galvalume will have a tendency to edge rust more quickly than galvanized. However studies show that painted galvalume will last longer than painted galvanized over the long haul, and that the rust will not spread into the panel nearly as fast as galvanized.

The superior corrosion resistance of GALVALUME® steel sheet is achieved by the presence of microscopic zinc-rich and aluminum-rich areas within the coating. The aluminum-rich areas, which corrode very slowly, provide the long-term durability, while the zinc-rich areas, which corrode preferentially, provide galvanic protection.

