



steelscape

ARCHITECT

METAL ROOF AND WALL MATERIAL SPECIFICATION SUMMARY



There's more to specifying metal than color. Several metal material attributes can influence product suitability, installed aesthetics, and long-term performance. To help demystify the terminology used in common metal specifications, and to assist with the selection of the right product, Steelscape has developed the following specification summary.

This summary also includes links to related resources to learn more about each topic in detail.

Need further help with any of these topics? Call our Architect Assistance Team at **(888) 553-5521**.

MATERIAL (Substrate)

WHAT TO LOOK FOR...

- ✓ Metal Substrate
- ✓ Aluminum Substrate

WHY IT IS IMPORTANT: The most common material for metal roofing is steel, due to its mix of performance, longevity, and price. Aluminum is a popular alternative in certain applications for its corrosion resistance properties. However, aluminum is more expensive and malleable, and may not offer the product performance attributes of comparable steel products. Not all product manufacturers (metal panel roll formers) may offer both material types.

The grade of the metal may be specified, but it is likely standardized by the product manufacturer. This refers to the metallurgy of the metal and its yield strength. The grade used often represents the optimization of performance needs and formability.

For More Information: → [Metal Roof Buyer's Guide](#) - see page 11 → [Material Capabilities](#) → Check with your preferred product manufacturer for their material capabilities.

MATERIAL SOURCE AND RECYCLED CONTENT

WHAT TO LOOK FOR...

- ✓ High Recycled Content?
Yes / No
- ✓ Domestically Sourced Material?
Yes / No

WHY IT IS IMPORTANT: Various building programs such as LEED or Living Building Challenge, provide extra credits for building products made from high recycled content or which use domestically sourced ingredients. Steel and aluminum products feature recycled content of varying levels. High recycled content steel guarantees input recycled content at a minimum high threshold (generally 50-75%) by sourcing from mills that utilize scrap input material. Base metal may be sourced domestically or internationally. Due to the complexity of supply chains, notifying suppliers in advance of content sourcing requirements will ensure appropriate material is available, avoiding project delays.

For More Information: → [Sustainability Technical Bulletins](#) → [Documentation Library](#)

METAL THICKNESS

WHAT TO LOOK FOR...

- ✓ Steel: 29ga, 28ga, 26ga,
24ga, 22ga, 20ga
- ✓ Aluminum: 0.032", 0.040"

WHY IT IS IMPORTANT: Metal thickness, often represented in inches or gauge (ga), directly influences product performance, weight, and cost. The smaller the nominal gauge, the thicker the material, the greater the strength, yet also the higher the price. Metal is inherently strong relative to its weight, and as a result, metal thickness is often standardized within industry or product groups to avoid the overuse of metal. For steel, 29ga is common in agricultural and light-commercial applications, 26 or 24ga for residential roofs, and 24 or 22ga for commercial roofing and siding. Typically, aluminum is specified in 0.032" or 0.040" thicknesses for similar applications.

For More Information: → Review building code needs and product performance tables found on manufacturer websites to identify suitable thickness relative to the application.

METALLIC COATING WEIGHT (STEEL ONLY)

WHAT TO LOOK FOR...

- ✓ TruZinc® (Galvanized)
G60, G90, Other
- ✓ ZINCALUME® (Galvalume®)
AZ50, AZ55, Other

WHY IT IS IMPORTANT: Steel is coated with a metallic coating to provide long-lasting corrosion resistance. The two key types of protection are galvanizing (a zinc coating, Steelscape's tradename is TruZinc®) or Galvalume® (a formulated aluminum-zinc mix, Steelscape's tradename is ZINCALUME®). Galvalume offers longer protection in most environments and carries a corrosion warranty. Coating weight refers to the amount of coating applied. Some products may carry a thicker coating weight for improved corrosion protection. For most metal roof and wall applications, the coating weight is standardized (Typically G60 or G90 for galvanized and AZ50 for Galvalume). The number in either product term refers to the ounces of coating applied per square foot. Please note, aluminum-zinc products with a coating weight of less than 50 (i.e. AZ35) are not classified as Galvalume and do not carry a corrosion warranty.

For More Information: → [Metal Roof Buyer's Guide](#) - see page 12 → [PPM02 Strategies For Success With Aluminum-Zinc Coated Metal Roofs](#)
→ [Documentation Library](#) - TruZinc and ZINCALUME Bulletins, Steel and Paint 101 Section

PAINT SYSTEM

WHAT TO LOOK FOR...

- ✓ Polyester, SMP, PVDF

WHY IT IS IMPORTANT: There are three common paint systems available in the market, polyester, silicon modified polyester (SMP), and polyvinylidene difluoride (PVDF). Each system varies by performance, cost, longevity, and warranty coverage. Polyesters and SMPs are most common in residential applications and PVDF in higher-end commercial projects.

For More Information: → [Metal Roof Buyer's Guide](#) - see page 13 → [Single Skin Metal Wall Design Guide](#) - see page 29 → [PPM01 Understanding Pre-Painted Metal Documentation Library](#) - TruZinc and ZINCALUME Bulletins, Steel and Paint 101 Section

WARRANTY COVERAGE

WHAT TO LOOK FOR...

- ✓ Film Integrity, Color Fade, Chalking

WHY IT IS IMPORTANT: Warranty coverage for the material will vary by the paint system used, and covers finish performance only. Finish performance may include film integrity (the painted finish is consistent and is free from blistering or cracking), color fade, and chalking (loss of pigments in color). Request a warranty summary from your preferred contractor if an end user warranty is expected.

For More Information: → [Documentation Library](#) - see Warranties → [PPM01 Understanding Pre-Painted Metal](#)

ALTERNATIVE FINISHES

WHAT TO LOOK FOR...

- ✓ Metallic Paint, Translucent Specialty Clears, Textured Paint, Printed Design, Matte and Low Gloss

WHY IT IS IMPORTANT: Modern paint technology allows for more than solid colors alone. Metallic paint systems can add sparkle, resins, and tints that can add depth, and dynamic light-play. Textures and matte finishes can reduce glare, or printed designs can add character or recreate other material types. Steelscape specializes in the production of premium, distinctive finishes. Be sure to check out Steelscape's Product Guide.

For More Information: → [Single Skin Metal Wall Design Guide](#) - see page 27 → [Product Guide](#) → [Request Samples](#) → [PPM01 Understanding Pre-Painted Metal](#)

COLOR

WHAT TO LOOK FOR...

- ✓ Color Name

WHY IT IS IMPORTANT: Color selection is not only important for integration with the aesthetics of the structure but can also impact product performance. Lighter colors offer better reflective properties than darker colors reducing heat build-up. Most metal products now come standard with cool pigment technology which offers improved reflective performance across all color types.

Note: There is no standardization for color naming conventions, and similar colors may be called different names depending on the manufacturer. Steelscape can assist with the custom matching process.

For More Information: → [PPM01 Understanding Pre-Painted Metal](#) → [Color Visualizer](#)

PAINT MODIFICATIONS

WHAT TO LOOK FOR...

- ✓ High Build Primer, Clear Coat, Double Sided Paint

WHY IT IS IMPORTANT: As highlighted earlier, the installed environment may require the paint system to be modified. Common modifications include high build primers or clear coats to improve corrosion resistance in marine and industrial environments. Alternatively, some applications, such as highly visible, bright corporate colors, may wish to have an additional clear coat applied over the base color to extend the resistance of the color to fade. Metal is usually only painted on one side with a neutral backer on the reverse. Some exposed applications, such as eaves, may require paint on both sides.

ADDITIONAL RESOURCE LINKS:

- [Metal Roof and Wall Glossary and FAQ](#)
- [Online Design Center](#)
- [Architects Center](#)
- [Project Gallery](#)
- [Color Visualizer](#)
- [Service Offer Manual](#)
- [Steelscape YouTube Channel](#)
- [Sustainability and Regulatory Guides](#)
- [Request Samples](#)
- ['Ask Steelscape'](#)

QUICK TIP

Always ensure you understand the environment of the installation.

Most metal is interchangeable between roofs and walls, however specific environmental conditions or structural performance needs may directly affect material selection. For example, proximity to salt water may impact the paint system selected. Alternatively, a thicker base metal may be needed to achieve minimum snow or wind load building code requirements. Always discuss these considerations when selecting a preferred material.

