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ON THE COVER: Lionakis Architects, siding panel is Mixed Flex Series (22ga) in a Cool Zactique II color.

## "The Only Constant in Life Is Change." - Heraclitus

Changes in the way we work and what we value, continue to push design professionals in new directions; hence transforming the communities we live in. Over the last two years, the pandemic has been the driver of several unique, short-term trends such as domestic relocations and an expanded desire for design personalization. But despite all the changes around us, several underlying drivers remain. It is no surprise that metal roofing and siding, with its durability and increasingly varied styles, continue to be a popular option for building and remodeling projects.

Like others, we began to realize that business returning to "normal" was unlikely, and that the need to pivot to digital resources was essential. Strides were made by expanding our educational, inspirational, and specifying resources, to online platforms. Our new Design Studio, Revit models, AIA-approved courses and submittal tools are just some of the areas we invested in to ensure continual, uninterrupted customer support.

Behind the products, and supporting our customers and communities, are our people. The 100+ teammates who form a diverse and talented group whose ideas, values, and contributions not only help our customers but support our beliefs.

Separate from day-to-day production, we continued our focus on the communities in which we operate. Whether donating metal materials for local projects or providing supplies for local events and programs, our support and employee engagement continues to grow. Employees across the company contribute their time to local and national non-profit organizations such as Habitat for Humanity, homeless shelters, and food banks. The volunteer passion of our employees is a clear indicator of our commitment to our bond - Our Communities Are Our Homes.

We hope you enjoy the AEP Span Magazine, designed to celebrate our commitment to the design community, our neighborhoods, and our people.



# Why Cool Metal Roofs?

7 Frequently Asked Questions

Cool Metal Roofs offer beauty, durability and other benefits you may not know about. Read our 7 FAQs below to learn what **Cool Metal Roofing is!** 

## WHAT ARE COOL METAL ROOFS?

Cool metal roofs feature paints and coatings with specially formulated pigments that reflect the sun. Heat from the sun is created by near infrared radiation (NIR) which is invisible to the eye. Traditionally, most dark pigments, such as black, readily absorb this radiation compared to lighter pigments (such as white).

Cool pigmentation gives consumers a broad range of colors to choose for their metal roof, including darker colors, while still reflecting heat, reducing heat absorption, and lowering building cooling costs.

## 2 - DOES COLOR MATTER?

Yes and no. All colors listed as Cool are efficient in nature, but the brighter colors will reflect heat more efficiently. Each color is assigned a value using the Solar Reflectance Index (SRI). This index measures solar radiation (the amount of heat reflected off of a surface) and emissivity (the amount of heat a surface can dissipate away from itself).

In the snapshot from a color chart here, all three colors are 'cool' colors; however, the pure white color has a significantly higher SRI value compared to the other two, with the lighter tan 'Pebble' color offering greater reflectance compared to the darker 'Dark Bronze'.



SRI: 88



SRI: 48



## - DO COOL COLORS COST MORE?

No, in fact cool pigment technology comes standard in most residential and commercial painted metal products today. Silicon Modified Polyester (SMP) and PVDF (Kynar or Hylar) paint systems, are the two most commonly selected products by homeowners, architects, and building specifiers.

### - DO COOL COLORS CHANGE THE FINISH OR MAKE IT SHINY?

Nope! A common misconception is that the SRI number articulates how shiny a roof will appear. This is not the case as the tool assesses how effectively the surface reflects heat, but is only related to invisible, infrared light.

Cool pigments are specifically engineered to only reflect invisible, heat-causing infrared light. They still absorb visible light, which means that they still produce a broad and robust range of color options and gloss levels.

## - HOW DO I KNOW IF MY COLOR IS COOL?

Typically, a manufacturer will mention if a color features cool pigment technology on the color card or literature. The term 'cool' will appear before the color name, or reference to the cool color technology in general. Always check with your product manufacturer prior to selection.

The Cool Roof Rating Council (CRRC) also publishes a list of certified cool roofing products in its rating products directory. The CRRC independently tests cool products and publishes these results in their directory.

# 6 - WHAT MAKES COOL METAL DIFFERENT THAN OTHER COOL MATERIALS?

Painted metal has several key benefits when compared to other cool roofing materials. The 3 biggest advantages are:

- Solar Reflectivity
- Heat Reflectivity
- Outstanding Durability

While other materials trap dirt or dull in color rapidly, the painted finish of metal roofing is very stable and uniform. This enables long-term aged heat reflectance values similar to those when first installed. Metal also offers a broader range of cool color optionality compared to most other roofing products.

When reviewing the SRI values of different materials, be sure to compare both the initial and three-year aged values of the material to see how reflective performance may drop off over time. Initial and aged SRI values are published on the CRRC product directory.

### 7 - WHAT ELSE CAN I DO TO BE COOL?

No we're not talking about popularity here, but a *cool* roof color forms just one part of a complete solution for reducing the heat trapped in a structure and lowering cooling costs. According to This Old House, the hot air trapped in attics can reach 150 degrees on a hot summer day, a situation that if left unchecked can drive up cooling costs by as much as 40%.

Other important elements to consider when making the roof area 'cool', include:

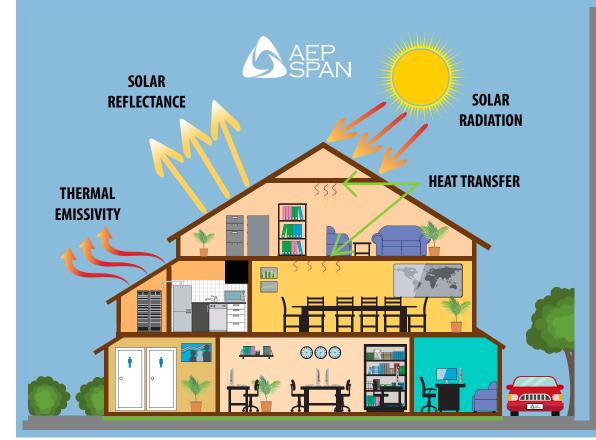
Ensuring a properly vented attic space to enable the free flow of air. This includes appropriate vents in the roof such as gable and ridge vents.

Installing appropriate insulation in the attic space and sealing any penetrations such as lights or plumbing to limit heat transfer into the rooms below.

Installing a house fan to expel residual trapped hot air.

Learn more about *cool* roofing and other metal roofing and siding topics in the AEP Span Learning Center. And of course you can browse our selection of Cool metal roof colors in our interactive color chart at AEPSPAN.com!

⇒ LEARN MORE ABOUT OUR COLORS



### SOLAR REFLECTANCE INDEX (SRI):

Measures the amount of heat reflected from a painted metal roof.

The **higher** the SRI value, the **cooler** your structure may be, helping cut down on energy costs.

Check out the office building to the left to see how it works!



## **AEP Span Mini Storage Solutions**

AEP Span's mini storage solutions offers architectural and commercial metal roofing and siding to fit your needs. With panel options in a wide selection of colors, our exposed fastener metal panels and purlins offer practical, yet durable solutions for your exterior and framing needs.

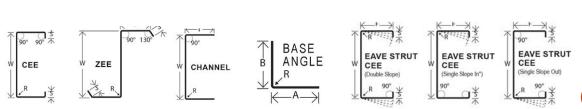
## The Structural Support You **Need – Purlin Offerings**





Box Rib™ Reversed Box Rib<sup>TI</sup> HR-36® U-Panel PRR Panel Nu-Wave® Corrugated Mini-V-Beam™

We're your source for steel components for pre-engineered metal buildings, residential framing, and solar mounting markets. We understand the benefits of steel, and offer a broad range of light gauge steel components to meet your mini storage or metal building needs.



**EXPLORE OUR MINI STORAGE SOLUTIONS** 



Natural colors offer excellent color ranges for mixed material and environmental integration. While normally associated with organic elements, AEP Span offers a range of natural hues for metal roofing and siding. These natural metal colors truly are a win-win for architects and homeowners - offering color flexibility without sacrificing performance or durability.

#### **Natural Colors**

Natural colors work in unison with their landscapes, creating harmonious color palettes. Their softer, less saturated tones improve integration with elements such as natural materials, environmental features, and diverse lighting conditions.



Natural colors can also project warmth and positive appeal; just think of the enjoyment natural landscapes with their balanced color often provide!

#### **Natural Metal Colors**

At first, the idea of metal roofing and siding in a natural color seems like an oxymoron. Traditional metal colors feature solid, vivid colors with moderate gloss. By comparison, natural metal colors feature less saturated tones, dynamic interaction with light, and can recreate the warmth of weathered metal surfaces.

AEP Span's Eternal Collection and Vintage are finishes with

reduced color intensity and dynamic light interaction. They feature a translucent, tinted finish over the base steel substrate, which provides a unique interaction with light that changes throughout the day.



Alternatively, colors such as our Rustic Series recreate the effects of long-term natural weathering. Naturally oxidized



finishes are desirable for their warm, earthy tones and varied patina, our Rustic Series gives you all that, with the durability and longevity of painted steel.

Visit our Online Visualizer today and see how these natural finishes can enhance your project!



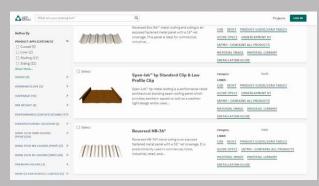
#### **Architect Resources**

Our expansive metal roofing and siding Design Studio is now available to you, offering you quick access to everything you need to specify metal roofing and siding with ease.

- · BIM. CAD & Rivet Models
- Project Management
- Submittal Generation
- Technical, Testing & Sustainability Documents

#### **Product Information**

Find panel features, testing data, approval reports, installation guides, BIM and CAD models and more! Use our built-in filter to refine your search through our 28 products to get exactly what you need.



The Product Finder helps you get what you need, fast.

#### Create a Submittal

Quickly access and download everything you need for a complete submittal package in just 4 easy steps.

- 1. Select Products
- 2. Select Documents
- 3. Edit Project Details
- 4. Download Submittal Package

### Sustainability

AEP Span is leading the way to healthier built environments for all with sustainable green specification documents.

Providing metal roofing and siding products for the design community seeking versatility, sustianability, and aesthetic appeal.

#### **Case Studies**

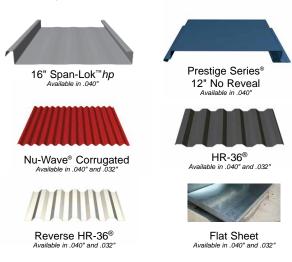
Inspiring projects showcasing a wide range of premium metal roofing and siding products, colors and applications.

**⇒** FIND OUT MORE



Aluminum is perfect for projects in coastal or other corrosive environments, as it is proven to offer outstanding is corrosion resistance. The material naturally develops a durable oxide film when exposed to air and is nearly impervious to further corrosion.

It's offered in our most popular metal roofing and siding panels, in all standard or custom colors and all paint systems! Available In:



### Features and Benefits of Aluminum Roofing and Siding

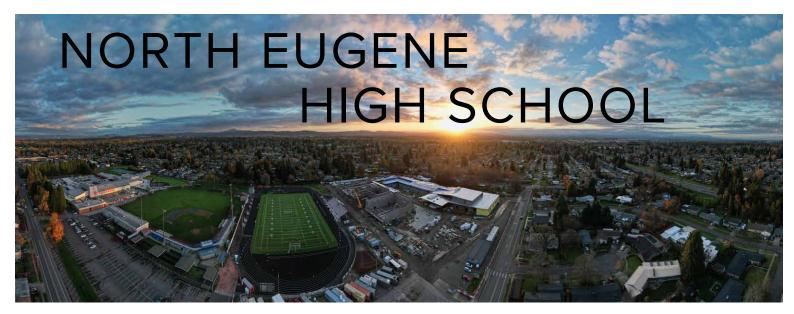
- Pre-painted aluminum in .040" and .032" thicknesses
- Third-party tested, exceeding industry testing standards
- 40-year Finish Warranty in an unlimited selection of colors.
- 20 and 15-year Marine Environment Warranties available
- Weathertight Warranty available (roof application only)
- · Minimum order requirements and longer lead times apply

# Samuel Andrews Andrews

AEP Span is committed to sustainability and contributing to green, healthy, built environments where people work, learn, live, and play. Renewable energy in our facilities, recycling programs, and continuously pursuing greener manufacturing are just some of the ways that AEP Span is demonstrating its responsibility as an environmental steward.

We have completed a cradle-to-gate life cycle assessment and can provide a third-party verified Product-Specific Type III EPD for our complete product offer. Moreover, AEP Span can offer a third-party verified material ingredient health assessment of its products in a painted coating and ZINCALUME® Plus coating.

You will find our products featured on LEED-certified projects across the Western U.S., and a comprehensive assessment of how our products can contribute to USGBC's LEED v4.1 standards and certification is available in our Resource Center at www.aepspan.com.





This high school in Euegne, OR selected AEP Span's Span-Lok™ hp Metal Roofing in 22 gauge for its volumnous roof, and the look so far is breathtaking!

Span-Lok hp is a performance-rated architectural standing seam roofing panel that provides aesthetic appeal as well as a weather-tight design. Its used in new construction or retrofit applications. Ideal for commercial, mixed-use,

retail or multi-use projects. Span-Lok provides versatility for architects and building owners.

The cool ZACtique® II finish selected comes with a 40-year limited warranty and will help keep the building cool during the warmer months as it has a Solar Reflective Index (SRI) of 39. This will also help to cut down on cooling costs, equaling cost savings over it's lifetime.





Span-Lok $^{\mathsf{\tiny{M}}}$  hp in a Cool ZACtique $^{\mathsf{\tiny{8}}}$  II

⇒ FIND OUT MORE ABOUT SPAN-LOK™ HP

# Metal Roofing & Siding Learning Center



Now more than ever, virtual resources are essential. Over the last year, we have grown our Learning Center so we could continue to provide uninterrupted resources and support. Our Learning Center has become a central hub of information offering continuing professional development in an engaging, interactive format. The courses available are to educate you on current topics related to designing and understanding metal, as well as providing you with AIA certified continuing education credits.



Throughout the year, we partner with leading industry professionals such as <u>Metal Architecture</u> to bring you free and accredited hour-long webinars focusing on subject matter relevant to the design community. The webinars break down important technical topics, review design considerations, and provide specification tips when selecting metal roofing or siding.

We understand not everything goes according to plan; life happens and things pop up. For these reasons, we have partnered with AEC Daily to bring our accredited courses to an on-demand format so you can move at your own pace and receive AIA CE credits on your schedule. If having a compressed schedule is typical or you're just looking to learn design tips one step at a time, then we have you covered with our AIA-approved Nano Courses. Our series of 15-minute short courses concisely summarize a range of topics related to metal roofing and siding.

For a more one-on-one experience, our team of experts are available to host Virtual Lunch & Learn sessions. You'll have the opportunity to interact virtually with experienced industry specialists on either a topic of your choosing, or one of our AIA-approved courses. Everything you need to get started and begin earning your learning credits can be found within our Learning Center.

⇒ FIND OUT MORE



#### LYTTON RANCHERIA RESIDENTIAL PROJECT - A RETURN TO TRIBAL HOMELAND

Lytton Rancheria is a private gated community project for the Lytton Band of Pomo Indians in Windsor, CA. The 124-acre proposed project includes 95 single family homes, 24 senior cottages and 28 townhomes. In addition, there will be an 18,000 square foot Community Center, a 4,200 square foot Retreat and a ceremonial Roundhouse, multi-use trails and open space.

The project incorporates many sustainable features, including the limited disturbance of the natural grade and preservation of existing trees; bio-swales and other stormwater runoff treatment/containment systems; cut-off luminaires and shielded lighting to avoid light pollution; water-efficient landscaping using primarily drought tolerant and native plant materials; energy-efficient buildings reducing energy use by HVAC and lighting systems; and the use of renewable, recycled, and low VOC materials. This project is scheduled to take 2 years to complete.

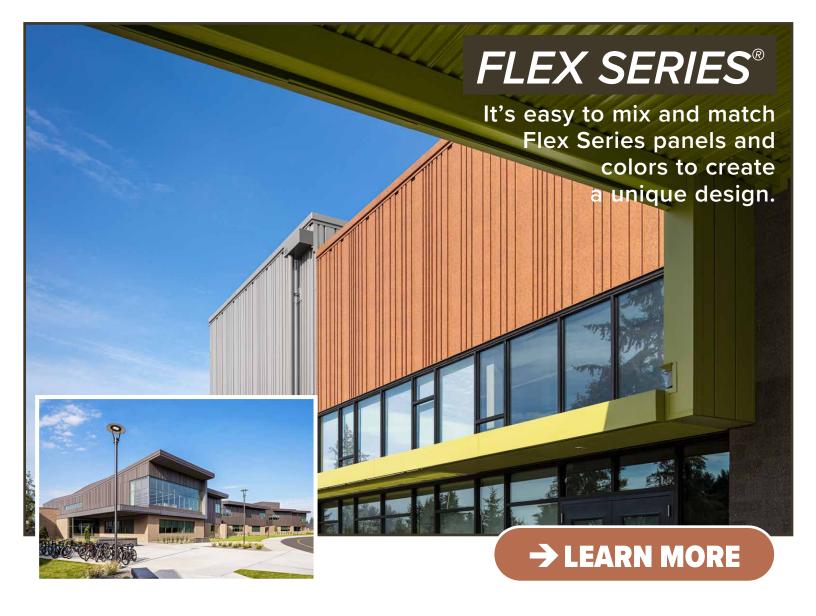


All structures on this project will utilize our standing seam 16" and 18" Design Span® hp metal roofing fabricated out of our 100% renewable and Red List Free ZINCALUME® coated steel. A mix of our energy efficient Cool Dura Tech™ 5000 (PVDF) paint system will be used on the Design Span® hp roof panels which includes a mix of 24ga and 22ga Cool Slate Gray, Cool



Parchment, Cool Weather Copper and Cool Old Town Gray. The townhomes, retreat building and tribal community center of this project will all be in our Old Town Gray.





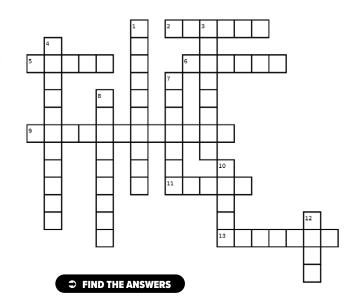
## **Metal Roofing & Siding Crossword Puzzle**

#### Down:

- A common metal panel type with repeating wavy or rippled pattern.
- As resin breaks down due to UV exposure, resin particles take on a white appearance.
- The process of coating a thin layer of zinc to steel to improve corrosion resistance.
- Refers to a coating that prepares the substrate for painting by providing 'bite' for adhesion and directly supports topcoat color and flexibility.
- Refers to the small ridges formed in flat areas of metal surfaces used to reduce the visual impact of oil-caning.
- 10. Refers to the thickness of metal.
- A green building rating system for healthy, efficient and environmentally sustainable structures.

#### Across:

- Provides the underside of painted metal with a base color. Typically white or neutral.
- Refers to the substance applied to a surface of metal to achieve a desired color and to protect the underneath.
- This occurs to metal roofing and siding products when UV rays attack the pigments in the paint and cause their color to change.
- A strong, skid-resistant membrane providing superior protection from water penetration.
- Reflective Index is the most common index used to measure the reflectivity effectiveness of a color.
- Fastener panels are lapped over one another, with the fastener attached from the outside.





## VINTAGE CHARM. CAPTIVATING LIGHT.

Vintage® Heritage offers two captivating colors ideal for metal roof and siding applications. As light reflects onto the painted metal surface, the effect captures multiple natural hues. These classic vintage colors provide a time-worn appearance with the durability and longevity of modern metal attributes.



**LEGACY** 



**EVOLUTION** 

#### **FEATURES / BENEFITS**

- Corrosion and graffiti-resistant
- Robust 20-year limited warranty
- For use in exterior and interior applications
- Offered in 22ga and 24ga metal roofing & siding panels
- Choose from a fluorocarbon coating over a ZINCALUME® or TruZinc® substrate
- Available as a special order with minimum order requirements and an extended lead time

Visit **steelscape.com** to explore more innovative colors and finishes for architectural metal roofing and siding.



FINISHES DEVELOPED BY





# **CUSTOMER SPOTLIGHT**

#### **OUR CUSTOMERS ARE OUR PARTNERS**

Our success depends on our customers and suppliers choosing us. Our strength lies in working closely with them to create value and trust, together with superior products, service and ideas.



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www.AxiomConstruction.net



Phone: 253-572-4045

www.EagleMetalsLLC.com



Phone: 360-456-6136

www.GeneralSheetMetalInc.com



Phone: 206-784-0545, Ext. 4

www.BallardSheetMetal.com/ Architctural



Phone: 425-588-5838

www.FirstMetalSupply.com



Phone: 206-762-3311

www.McKinstry.com

