



*McElroy Metal*

*Max-Rib*

*Quality... Service... Performance...*

*A family-owned company with a reputation for  
putting customers first!*



## McElroy Metal - *Quality... Service... Performance...*

Since 1963, "Quality, Service, and Performance" has been the cornerstone of McElroy Metal's business philosophy and success. With 12 manufacturing facilities, McElroy Metal remains family owned with a belief that business ethics and morals have a place in the work environment. We continue to conduct business under the Golden Rule adage, "Customers deserve to be treated the same way we expect to be treated by our suppliers."

### McElroy Metal's Max-Rib -

*All metal panels are not created equal!*

### McElroy's *Max-Rib Options*

Varying applications, end uses, and expectations require different metal panel alternatives. Fortunately, McElroy's popular Max-Rib profile is available in five distinct options: Max-Rib Ultra, Max-Rib II, Max-Rib 100, Max-Rib 185 and Max-Rib Commodity. The best choice for your individual project depends on factors such as desired longevity, aesthetic appeal, and budget.

#### • **Max-Rib Ultra - Galvalume® Substrate with Kynar 500® (PVDF) coating**

For unsurpassed performance in a light gauge panel, Max-Rib Ultra is the ultimate choice. This distinctive metal panel combines the long-life performance of a Galvalume® steel substrate with a fade and chalk resistant Kynar 500® (PVDF) based Fluoropon® paint system. The end result is an exceptional metal panel that provides unmatched resistance to chalking and fading and is your assurance that your project will retain its beauty year after year.

#### • **Max-Rib II - Galvalume Substrate with a Silicone Modified Polyester (SMP) coating**

Combining the long-life characteristics of a Galvalume steel substrate with the proven performance of a high quality Silicone Modified Polyester (SMP) coating, Max-Rib II is an excellent multi-use metal panel.

#### • **Max-Rib 100 - Galvanized G100 Substrate with a Silicone Modified Polyester (SMP) coating**

Combining a zinc coated G100 galvanized substrate with a high quality Silicone Modified Polyester (SMP) coating, Max-Rib 100 is an ideal panel when a galvanized substrate is required.

#### • **Max-Rib 185 - Bare Galvanized Substrate**

McElroy inventories a limited quantity of G185 bare in Marshall, MI. Please inquire for availability and lead times.

#### • **Max-Rib Commodity**

Max-Rib Commodity is an economical panel that is ideal for basic shade and shelter applications.

\* Contact McElroy Metal to obtain a copy of actual warranties or visit [www.mcelroymetal.com](http://www.mcelroymetal.com).





## Facts About Coatings

The coating system, or paint, for metal panels is just as important as the substrate. For the life of the panel, the coating will be exposed to environmental elements - ultraviolet sun rays, acid rain, dirt, etc. Over time, these environmental conditions will break down the coating resulting in panel fade and chalk.

Fade and chalk is not pleasing to the eye, and the degree of fade and chalk is directly related to the coating system. The most popular coatings for metal panels are Kynar 500® (PVDF), Silicone Modified Polyester (SMP) and Polyester. Of the three, Kynar 500® (PVDF) coatings provide the best protection against fade and chalk while Polyester coatings provide the least protection.

Max-Rib Design Matrix	DESIGN REQUIREMENTS									
	Coating Warranty	Long-Term Owner Satisfaction	Fade Resistance	Chalk Resistance	Longevity	Gloss Retention	Basic Shade and Shelter	Residential Roofing	Corrosion Resistance	Budget
McELROY MAX-RIB PANELS										
MAX-RIB ULTRA	<b>BEST</b>	✓	✓	✓	✓	✓	✓	✓	✓	✓
MAX-RIB 100	<b>BETTER</b>				✓				✓	
MAX-RIB II	<b>BETTER</b>				✓				✓	
MAX-RIB COMMODITY	<b>GOOD</b>						✓			✓

Please use this design matrix to choose the Max-Rib line that matches your expectations.

### Kynar 500® (PVDF) Coating

#### Max-Rib's Performance and Aesthetics for the Long Run ...

#### Field Tested ... Real Life Performance

Kynar 500 (PVDF) coatings are the best for long service life, color retention and chalk resistance. Selecting Kynar 500 (PVDF) means long-lasting "like new" appearance verses other coatings which can begin to degrade and look aged after only a few years.

Both Kynar 500 (PVDF) and Silicone Modified Polyester (SMP) panels were installed on this residence in Louisiana.

On day one, colors were identical. Photo taken less than eight (8) years later shows fading and chalking of the lighter Silicone Modified Polyester (SMP) panels. Note, no fade or chalking of the darker Kynar 500 (PVDF) panels.



This building addition dramatically illustrates Kynar 500's (PVDF) superior performance. This building was built in two phases, nine years apart. Note, no color difference in the two halves of the roof. No fade! No chalk!

### EDGE-RUST INHIBITOR

A special clear, rust inhibitor is factory-applied to the cut ends of each Max-Rib panel. This inhibitor deters rusting of the exposed edge.



*Environmental tests show extensive corrosion along cut end of panel without Edge-Rust Inhibitor.*



*Minimal corrosion is detected along cut end of panel with Edge-Rust Inhibitor application.*



### Facts About Substrates

The most popular steel substrates in the metal roofing and siding industry are Galvanized and Galvalume®. Galvanized substrates are coated in zinc, while Galvalume substrates are coated with an alloy of zinc plus aluminum. Both Galvalume and Galvanized are good substrates for metal panels.

The important point to remember with galvanized substrates is *the greater the amount of zinc, the greater the protection against panel corrosion*. Two commonly used substrates are G100 and G60. These designations relate to the total amount of zinc coated on both sides of the metal panel surfaces. G100 contains 1.0 ounces of zinc for every one square foot of panel while G60 substrates contain only 0.6 ounces of zinc. The important fact to consider is that the G100 substrate contains 66% more protective zinc than the G60 substrate. This difference will have a direct correlation to panel longevity and long-term aesthetics of your project.

Galvalume substrates combine the proven corrosion protection properties of zinc with the barrier protection of aluminum. The end result is a superior substrate that will provide years of service life for most applications. In fact, Galvalume substrates are warranted from the steel mills against perforation due to rust. Galvanized substrates do not carry a perforation warranty.

Although Galvalume substrate is noted for its corrosion resistance, it is not recommended for the special demands of animal confinement applications. Please contact your McElroy representative regarding applications of this type.

Metal panels using bare or acrylic-coated Galvalume substrates often exhibit noticeable color variations from panel to panel. If a uniform appearance is critical to the end user, a painted product is recommended.

For further information, McElroy Metal is proud to offer an Educational Video series about Substrates and Coatings. To view, please visit:

[www.mcelroymetal.com/mcelroy-university-videos.html](http://www.mcelroymetal.com/mcelroy-university-videos.html)



Foreign steel is very common in the metal panel industry. However, you can rest assured that . . .

***Max-Rib is manufactured from steel made in the USA!***

# Max-Rib

## Max-Rib Details

### Recommended Fastener Location

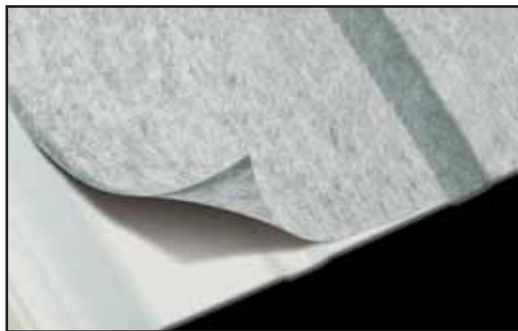
At base, eave, ridge & lap: 2" on each side of major ribs (as shown).

At intermediate supports: 2" on one side of major ribs.

- Standard spacing: 24" o.c.
- Maximum spacing: 48" o.c.
- Stitch screw at panel lap is recommended every 20" o.c. maximum.



### Max-Rib with MoistureLok



For non-climate controlled buildings, field applied condensation control has historically been a necessary and labor-intensive construction element. McElroy Metal's Max-Rib, Multi-Rib (PB), MasterLok-90 and Mirage panels are available with a factory applied MoistureLok anti-condensation membrane. The end result is an economical and non-labor intensive condensation solution.

McElroy Metal's MoistureLok membrane provides a medium for trapping moisture and holding droplets in place until conditions go back below the dew point. At that time, the moisture is simply released back into the atmosphere in the form of natural humidity.

For more information about MoistureLok, please visit:

[www.mcelroymetal.com/products/downloads?download=5085#moisture-lok-and-capillary-action.pdf](http://www.mcelroymetal.com/products/downloads?download=5085#moisture-lok-and-capillary-action.pdf)

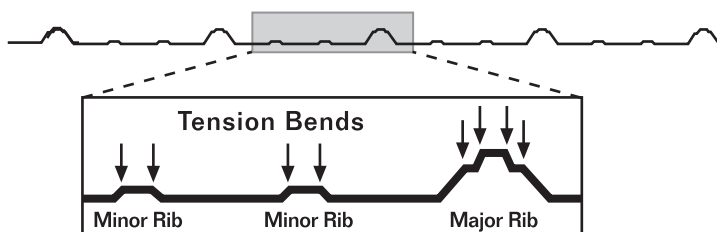
### ThermoForming

To increase corrosion protection for greater longevity, visual appeal and value, McElroy Metal ThermoForms Max-Rib galvanized and Galvalume metal panels with Silicone Modified Polyester coatings.

#### What is Tension-Bend Cracking?

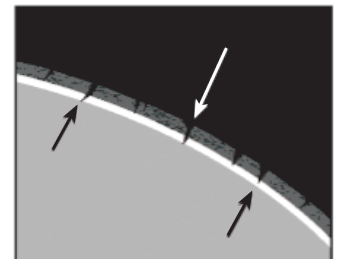
At colder forming temperatures, the substrate and Silicone Modified Polyester (SMP) paint coatings become brittle and the forced bending by the rollers may crack both layers (as shown on the right). This exposure point is unprotected from oxidation (rusting) of the base metal substrate. Because Kynar 500® (PVDF) coatings are more flexible, tension-bend cracking is not an issue with Max-Rib Ultra®.

#### Where Tension-bend cracks occur ...



#### ThermoForming, the process ...

Prior to entering the roll-former, the coil sheet enters a heater that raises inner and outer temperatures to >120F. This process increases the ductility of the paint coating as well as the ductility of the galvanized or galvalume metallic coating.



Without ThermoForming the base metal is exposed by cracks in the paint and metallic coatings resulting in rust.

