

# What is Cool Metal Roofing?

## Cool Roofing Defined

The term cool roofing refers to the ability to minimize heat gain through the roof surface. It can be described by two terms: solar reflectance and thermal emittance.

The combination of those properties determines the surface temperature of a roof and its ability to act cool. Metal roofing has a wide range of solar reflectance and thermal emittance values, making it the most versatile and energy efficient choice for roofing in many different climates and applications.



## What are the Benefits of Cool Roofing?

### Savings on Energy Bills

Cool roofing owners have reported annual energy savings up to 40%. Metal roofing solar reflectance and thermal emittance capabilities can reduce air conditioning and heating costs, which reduce the smog and pollution that are created by the production of that energy. Some insurance companies offer discounts to customers for using a qualified metal roof.

### Environmentally Friendly

Metal roofing's durability can virtually eliminate the need to use future raw materials to produce roofing. It is practically unaffected by weather cycles and forces.

Most metal roofs have recycled content ranging from 25% to 95%. Conventional roofing shingles have much shorter lives and use oil-based products as their primary raw material. Metal also has the added benefit of being 100% recyclable if it is ever removed in the future.



## Common Terms:

### ENERGY STAR:

ENERGY STAR is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy working to help us save money and protect the environment through energy efficient products and practices. Besides benefitting from the energy saving capabilities of a metal roof, homeowners may also qualify for government incentives for installing ENERGY STAR roofing. Check with your salesperson for more information.



### LEED rating system:

LEED stands for Leadership in Energy and Environmental Design. The LEED rating system was designed to guide and distinguish high performance buildings that have less of an impact on the environment, are healthier for those who work and/or live in them, and are more profitable than their conventional counterparts. Using metal and other "green" products can earn points towards LEED certification.

### Solar Reflectivity:

Solar Reflectivity is a measure of a material's ability to reflect sunlight. This characteristic of metal roofing is the most important in terms of energy savings. Cool metal roofing reflects much of the sun's rays, making the surface of the metal much cooler than material with a lower solar reflectance rating.

### Emissivity:

Emissivity is the ability of a material to release absorbed heat. A low emissivity rating means the material will be hot to the touch (it doesn't release the heat), while material with a higher emissivity rating will be cooler to the touch. Therefore, metal with a low emissivity rating retains heat and is desirable for a cooler climate, while a high emissivity is more effective for saving energy in a warmer climate.

Information obtained from usgbc.org, energystar.gov, the Metal Roofing Alliance, and Metal Construction Association.

## What Central States Provides:

- Central States painted metal panels are available with limited 40 year paint warranties which last 2-3 times longer than traditional asphalt shingles.
- Central States carries a variety of colors that meet ENERGY STAR requirements.
- Builders can use Central States' R-Loc and Horizon-Loc panels, and our secondary structural steel to earn LEED points.
- Visit [centralstatesmfg.com](http://centralstatesmfg.com) for more information about our metal roofing products that can help save energy.