

Sustainable Steel Roofing

Slated for Tip-Top Performance: A Sustainable, Long-Term Investment



Steel roofing: the natural choice for any environment

Light, strong and durable, demand for long-lasting, sustainable steel roofing continues to rise. Builders, as well as business and home owners, like the long life of a steel roof. It is made from a zinc-coated steel that provides excellent corrosion resistance and weatherability, giving the roofing system long life. The steel itself boasts a minimum of 25 percent recycled content. In addition to being much lighter and stronger than traditional roofing materials, steel roofing systems offer a wide variety of shapes and colors, allowing them to resemble different styles and materials. Use of steel roofing in regions of frequent snowfall is growing thanks to its snowshedding ability, while on the West Coast, steel is used for its light weight and noncombustibility, which are attractive features in seismic and wildland urban interface fire areas.

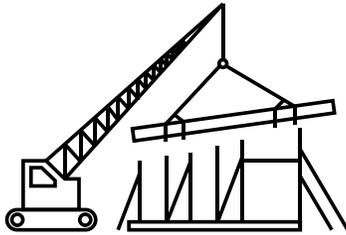
Steel roofing: puts the lid on costs

Steel roofing is extremely durable. Prepainted steel roofs can easily last 60 years or more. Steel will not crack, shrink or otherwise react to the effects of humidity and sunlight, extending the roofing system's life beyond other materials. Steel is noncombustible, enhancing safety in the case of lightning strikes or other ignition sources, and is not an inviting habitat for termites and other insects. In new construction projects, lightweight steel roofing reduces internal structural support requirements, lowering material costs and labor. Disposal costs are a routine part of cost estimates given for reroofing jobs; however, with steel roofing systems, disposal costs are minimized. Steel roofing is lightweight and often can be installed directly over most old roofs, resulting in quicker installation time and less material that ends up in the landfill. Steel roofing has low life-cycle costs, making it the choice of many school, government, commercial, industrial and institutional building owners.

**LIGHT, STRONG AND DURABLE,
DEMAND FOR LONG-LASTING,
SUSTAINABLE STEEL ROOFING
CONTINUES TO RISE.**



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More than 60 million tons of steel scrap are recycled each year.

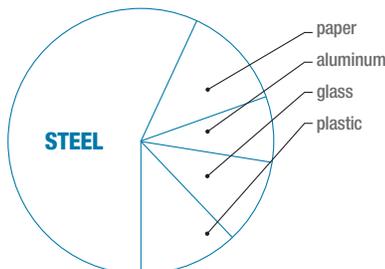
Steel roofing: covers the demand for energy efficiency

The roof can have the greatest impact on the energy use of a building, which is significant since buildings consume one-third of all energy and two-thirds of all electricity generated. Cool roofs made with steel can help reduce energy consumption by lowering cooling loads with their wide array of finishes, designs and colors. Cool roofing can also help to mitigate the Urban Heat Island Effect because of its high reflectance, which can reduce ambient air temperatures.

Cool roofing can achieve solar reflectance of over 70 percent, meeting EPA Energy Star Roof Products Program performance criteria. Emittance as high as 90 percent can be achieved for painted and granular-coated steel roofing. Additionally, wall and roof solar heat recovery systems can be integrated with steel cladding and used to provide air, water or process heating needs.



Steel Recycling vs Other Materials



Steel roofing: the peak of recycling performance

In addition to its long life, a steel roofing system will give back to the environment long after it is removed from service. Even after decades of protecting a structure, steel roofing systems are completely recyclable when separated from other materials during the demolition process. The steel from roofing systems is as recyclable as the steel cans, cars and appliances recycled through community recycling programs. It will not be long after the steel roof is removed that it will be a part of a new steel product. For nearly as long as steel has been made, steel scrap has been a key ingredient in the steelmaking process.

All new steel is actually made from a mixture of steel scrap and other necessary raw materials, creating its minimum of 25 percent recycled content. This recipe for recycling has long been driving steel recycling accomplishments. For the past 50 years, more than 50 percent of the steel produced in the United States has been recycled. An extensive steel recycling infrastructure has developed around this need for steel scrap. When a structure with a steel roof is demolished, the steel is not landfilled, but instead sent to one of more than 2,000 ferrous scrap processors that prepare steel scrap for recycling. Then, this desirable steel scrap is shipped to the steel mill for recycling into new steel and, ultimately, into new products.

STEEL ROOFING IS EXTREMELY DURABLE. PREPAINTED STEEL ROOFS CAN EASILY LAST 60 YEARS OR MORE. STEEL WILL NOT CRACK, SHRINK OR OTHERWISE REACT TO THE EFFECTS OF HUMIDITY AND SUNLIGHT, EXTENDING THE ROOFING SYSTEM'S LIFE BEYOND OTHER MATERIALS.

About steel recycling

Steel has long been North America's most recycled material. For the steel industry, using old steel products and other forms of ferrous scrap to produce new steel lowers a variety of steelmaking costs and reduces the amount of energy used in the process. That's why more than 60 million tons of steel scrap are recycled each year. In fact, more steel is recycled than paper, aluminum, glass and plastic combined. As an end result, recycling steel scrap also saves landfill space and natural resources. Steel roofing materials, like other steel products, are a part of the steel industry's massive recycling efforts. What's more, all new steel made in North America contains recycled steel. Parts of new steel roofs may have once been a part of an automobile, refrigerator or soup can. Choosing a steel roofing system means buying and using a product that contains recycled steel and that will be recyclable at the end of its useful life.

For more information

Commercial roofing: Metal Construction Association – www.metalconstruction.org
Residential roofing: Metal Roofing Alliance – www.metalroofing.com



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