



One of the most important components to any home or building is its roof. This surface shields the building from most of its weather exposure, including rain, snow, sleet and hail. Installing or replacing a roof can be a sizable investment, and one the owner hopes will be long-lasting. It is important to weigh the options between short-term and long-term roofing systems to make the best choice for your application. Below are some quick comparisons between composition and metal roofing for your review:

Composition/Asphalt Roofing

Very common, readily available, many shapes and colors

Composition shingles are constructed with a fiberglass mat core. Warranties often are listed for 15 to 30 years, but are prorated, and usually the roof is recommended for replacement much sooner.

Shingles are subject to hail and wind damage.

Shingles have some limited fire resistance. Once burning, shingles can fuel a fire.

Composition roofs in no way protect a building from lightning. Only lightning rods or other conductive lightning arrest products provide this benefit.

Composition roofs are easy to install, and have a relatively inexpensive installation cost. There is no issue of expansion/contraction with shingles. Due to limited lifespan, life-cycle costs are higher than metal roofing.

Composition roofs are susceptible to algae growth, staining and foot traffic.

Steel Roofing

Metal roofing has been used for hundreds of years and has proven performance. Advanced coatings, extensive colors and many available profiles make metal roofing an increasingly popular option for residential applications.

Steel roofing coil begins with etching, priming and galvanic coatings, which is then coated with an advanced color finish. Steel panels can have a life expectancy upwards of 50 years. Re-coating systems can now extend a steel roof's lifespan even further.

Most 24 gauge and even 26-gauge roofing material is unaffected by moderate hail, and one of the strongest roofing products against wind damage and tear-off.

Most metal roofing is class "A" rated fireproof and impact-resistant. For this reason many insurance companies offer significant discounts for metal roofs.

Metal roofing does not make a roof more susceptible to lightning strikes. In fact, with a conductive surface the threat of fire and explosion is actually reduced. Because metal roofing is both an electrical conductor and a noncombustible material, it is the most desirable roofing material for lightning protection available*.

Metal roofs are best left to professional installers. Roofs must be installed correctly for proper weather-tightness and to allow for expansion/contraction. Initial installation and materials costs may start at 20% more than that of a composition roof, although due to its long lifespan, life-cycle costs may be lower than composition.

It is very unlikely that any algae or molds will affect metal roofing. Foot traffic restrictions may exist for certain types of installations, but generally metal roofing is impervious to such marring.

Composite VS. Steel, con't.

Composition roofs represent a non-recyclable, one-use product that ultimately ends in a landfill. According to the National Association of Homebuilders, over 20 billion pounds of asphalt shingles are dumped in US landfills every year.

Composition shingles are heavy. One layer of composition shingle can weigh 3 lbs per sq. ft. A home with 2500 sq. ft. of roof, two layers deep may have over 15,000 lbs of roofing bearing down on the structure.

Composition shingles with their asphalt substrate naturally absorb radiant heat energy, and hold it for a long time. This radiant heat can continue to permeate an attic space long after the sun has gone down. Even newer products with energy efficient labels can't perform as well as metal.

No energy tax benefits for most composite roofing products. Some new premium UV products may qualify.

Composition roofs require periodic maintenance. Caulking for leaks, replacing worn or torn-off tabs is expected as normal maintenance within a roof's lifespan.

Metal panels are a 100% recyclable material, and in fact there is less energy cost in reprocessing steel than in making new steel. Most steel coil today consists of 25 – 40% recycled steel. With proper recycling, no metal has to ever enter a landfill.

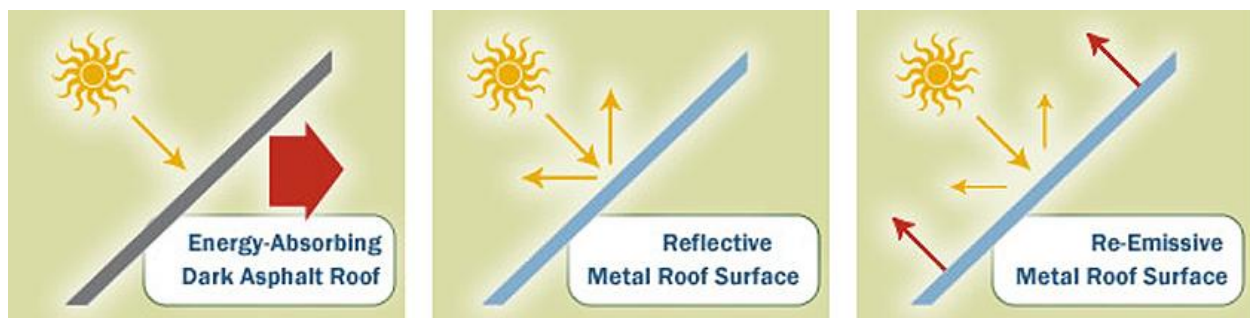
As an additional benefit, metal roofing can be retro-fitted over an existing composite roof, eliminating the need for the landfill impact of the composite tear-off.

Metal roofing is not only stronger, longer lasting and more storm-resistant, but is much lighter. Metal roofing weighs approximately one seventh of a comparable composition roof, putting less stress on the house structure.

Most metal roofing today achieves or exceeds the government's EnergyStar ratings. Metal both reflects away the sun's radiant (reflective) energy, and dissipates any absorbed (emissive) energy quickly. An EnergyStar metal roof will provide significant energy savings over composition. It is possible for a white EnergyStar metal roof to reduce summer energy consumption by 40%.

An energy-efficient roof installation may qualify the home owner for a tax credit. Restrictions may apply – check with your contractor or EnergyStar.gov for the latest programs.

A properly installed metal roof is maintenance-free. There are no interim repairs needed to maintain its performance. There are homes on record** with metal roofs since the early 1900's, that are still in good condition today.



(Source: Cool Metal Roofing Coalition)

Sources: metal-roofing.net, doityourself.com, eHow.com, metalroofing.com, Metal Roofing Alliance, Cool Metal Roofing Coalition, Oak Ridge National Laboratory, EnergyStar.gov, metalconstruction.org, NFPA 780, 1995 edition National Fire Protection Association.

*Lightning and Metal Roofing, Metal Construction Assoc.

**according to Conklin Metal Industries