

Metal Roofs Keep Your Home Cooler

Q: *I heard metal roofs qualify for an energy-efficiency tax credit. How does a metal roof conserve energy? Are they worth the added cost? What type is best?*

A: Many—but not all—metal roofs qualify for the federal energy conservation tax credit for 2010. Metal roofs save energy by keeping your house cooler during the summer, which can reduce electric bills if your home is air conditioned.

A metal roof has a negligible impact on energy efficiency in the winter.

In general, to qualify for the energy tax credit the roof must meet Energy Star qualification standards. For roofing, this means the total solar reflectivity (TSR) must be greater than 25 percent when new and 15 percent after three years of aging. To be sure the roofing qualifies, ask for the specifications and a manufacturer's certification statement (MCS).

It pays to be diligent. I recently got quotes on a roof installation and several roofers told me their asphalt shingles qualified for the tax credit. They actually did not qualify.

The amount of the tax credit is 30 percent of the material cost of the roof (not installation expenses) to a maximum of \$1,500. Use IRS form 5695 to apply for the tax credit and save the payment receipt and MCS in case of a tax audit.

For my own home project, I selected a Classic Metal Roofing Systems aluminum roof. It is made from 98 percent recycled aluminum, and the 1-by-2-foot panels are formed to simulate a cedar shake roof. It's attractive and unique.

To install the aluminum panel roof, a special film underlayment was nailed down with plastic clips and stainless steel fasteners over the existing shingles, which saved the expense of tearing off the old shingles. Each aluminum panel interlocks with the adjacent ones on all four sides. The top of each panel is held

down by a stainless steel nail through a hole in the upper corner and an aluminum clip attached midway across the top. It is designed to stand up to a 120-mph wind.

Although it is more expensive to install than an asphalt shingle roof, my new metal roof will never have to be replaced. From a lifetime cost comparison, it is cheaper than installing an asphalt roof every 20 to 30 years. I get a 3-percent reduction on my homeowner's insurance because of reduced fire hazard.

Most metal roofs reflect more of the sun's heat than do asphalt shingles, particularly black shingles. My metal roof has a TRS of 0.43. A black asphalt shingle roof has a TRS of only 0.05. This keeps the roofing materials cooler so less heat is radiated down through the ceilings to the living area. The underside of the aluminum surface has lower "emissivity"—the ability to emit heat—than shingles, so less heat radiates downward.

The final energy advantage is the Classic Metal Roofing aluminum panels are relatively thin, with the contour of shakes formed into them. This contour creates an air gap between most of the roofing and the roof sheathing or shingles below it. The gap allows some outdoor air to circulate up under the metal roof panels to keep them cooler.

Steel roofing is another option. Painted standing seam or tile steel roofing is durable. The bright colors and unique appearance are signatures of upscale homes.

The following companies offer metal roofs:

- ▶ **Classic Metal Roofing**
(800) 543-8938
www.classicmetalroofingsystems.com
- ▶ **Conklin Metal**
(800) 282-7386
www.metalshingle.com
- ▶ **Follansbee Steel**
(800) 624-6906
www.follansbeeroofing.com
- ▶ **Met-Tile**
(909) 947-0311
www.met-tile.com. ■



A completed garage metal roof with matching trim and flashing.



To ask a question, write to **James Dulley**, Energy Report, 6906 Royalgreen Dr., Cincinnati, Ohio 45244, or check his Web page, www.dulley.com.

Copyright 2010, James Dulley