



Reflective Roof Coatings May Be A Money Saver

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By: [Steve Graham](#)

A house with a dark roof absorbs a lot of summer heat, making the house less comfortable and raising summer cooling bills. There is a relatively inexpensive but effective solution for low-slope roofs: [reflective roof coatings](#). These can be professionally installed, or do-it-yourself kits are available. When applied properly on the right roof, these coatings can be major energy savers.

How do reflective roof coatings work?

Coatings contain cement particles or polymers, or both, and white pigments that reflect sunlight and reduce heat-related roof damage. They have been used on flat and low-slope roofs for more than 20 years.

Newer products are available for DIY application on steep-slope asphalt shingle roofs, the most common residential roof, but the [American Society of Home Inspectors](#), the [National Roofing Contractors Association](#) and other groups warn against these products. Asphalt shingles are not designed to be coated, and the coatings could cause structural problems and void warranties. Even for flatter roofing, reflective coatings are not for everybody. If your roof is shaded or the attic is well insulated, you may not see significant energy savings (though they could still extend the life of the roof).

To be effective, the coatings must be applied thickly, according to manufacturer's instructions, on a clean, dry roof compatible with the coating. They should also be kept clean to maximize reflectance and minimize damage.

How much do the coatings cost?

Reflective coatings typically cost 75 cents to \$1.50 per square foot, including labor, according to the [Environmental Protection Agency](#). Of course, you can save money by carefully installing the coatings yourself.

The coatings should last at least 10 years, and can extend the life of the roof. Look for [Energy Star](#)-labeled products, which have been tested long-term. Unlike some energy-saving roof

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products, roof coatings are not eligible for federal tax credits, but state or local tax incentives may be available.

How effective are the coatings?

Tests at the [Lawrence Berkeley National Laboratory](#) have shown that reflective coatings can cut energy costs for summer cooling by 25 to 67 percent. The greatest changes were seen on buildings with lightly insulated roofs. Uncoated bitumen or tar-and-gravel roofing can reach 200 degrees Fahrenheit in the summer, but a coating will keep surface temperatures under 135 degrees.

The Lawrence laboratory tests show that the best products reflect up to 85 percent of solar heat, and cause only a 9-degree temperature increase in direct sunlight.

Steve Graham is a Hometalk.com writer. Read more articles like this one — [networkx.com/article/roofing-keeping-cool-with-a-reflective](#) — or get help with your home projects on Hometalk.com