

Green and Efficient Roofs



Overview

Energy-efficient roofs and “green roofs” can have a big impact on your heating and cooling bills by insulating your home in the winter and reflecting unwanted heat in the summer. They can reduce your family’s environmental impact by absorbing carbon dioxide and storm water. And you can even use your roof as an herb garden!

Making Your Roof More Efficient

While most homes have roofs made of black asphalt roofing shingles, there are quite a few other types out there. Wood shingles, metal, tile and flat synthetic roofs are all other common types. More recently, some homeowners have adopted “green roofs” – also known as living roofs – where plants grow in special roof installations on top of a traditional water and root barrier.

Reflective Roofs: Reflective white metal roofs are a good idea in hot, sunny climates because the sun’s heat bounces off your roof rather than heating up your home – as it does for all your neighbors with asphalt shingles. According to the National Science Foundation, besides reducing the amount of energy needed to cool buildings, white roofs may be able to help reduce heat in urban areas.

Radiant Roof Barrier: Think of a giant sheet of aluminum foil stapled to a big piece of plywood. Now line your attic with a whole bunch of those. That’s a radiant roof barrier. It works like a white metal roof by reflecting the sun’s heat away from your home; only it does it from inside the attic rather than outside on the roof. The barriers work well in hot, sunny climates, and if you’ve got an existing home with a perfectly good roof, it may be more cost effective to put in a radiant roof barrier than replace your existing roof with a white metal reflective one. Radiant roof barriers can be installed either along the rafters of your attic (right under the roof) or just above the insulation at the bottom of the attic.

Green Roofs: The word “green” gets thrown around a lot in the energy efficiency world, but green roofs are true to their name. The plants that grow on green roofs reduce the heat a home absorbs from the sun, and they reduce the amount of rainfall that ends up running off into the storm sewer system. Reducing heat and water runoff can help counteract the carbon footprint of the people living under that roof. And the asphalt barrier underneath a green roof can last twice as long as traditional asphalt roofing.