

eShield™ MULTI-LAYER REFLECTIVE INSULATION PRODUCTS

During summer months, the sun's radiant energy heats your roof shingles, which then transfers that heat into the attic through conduction. The attic's temperature increases and the heat is eventually released into the rest of the house.

Heat can have a similar effect in the winter months but from the inside. The warmth generated from your heaters can escape in various ways, keeping your home from being as warm as it can be. All of this results in higher electricity bills.

Reflective attic insulation addresses this issue by reflecting radiant heat rather than absorbing it. This system consists of highly reflective material – usually foil – that reflects heat from the sun to keep it from entering your home while keeping heat from inside your home from exiting. They generally take the form of foil sheets placed on the ground or walls of your attic.

HOW REFLECTIVE ATTIC INSULATION WORKS

Heat travels through conduction and radiation. Heat flows by conduction from a hotter location within a material to a colder area. Radiant heat travels in a straight line away from a surface and heats anything solid that can absorb its energy.

Reflective insulation systems work by reducing radiant heat gain. When the sun heats a roof, its radiant energy makes the roof itself hot. Through conduction, the heat travels from the roofing material to the walls of an attic. The hot roof material then radiates that gained heat energy onto the cooler attic surfaces. The reflective attic insulation reduces the heat transfer from the hot roof material to the attic surfaces. Similarly, the same reflective insulation material can reflect radiant heat generated from inside the home.

BENEFITS OF REFLECTIVE ATTIC INSULATION

The most apparent benefit of reflective attic insulation is a cooler attic, which translates to a cooler home. Because heat isn't getting trapped inside the attic, less heat is being transferred to the lower levels. Multi-layer reflective attic insulation can block up to 97% of radiant heat transfer, translating to an attic heat reduction of almost 30 degrees Fahrenheit.

This reduction in heat during the summer months can be highly beneficial for homeowners during the summer, where you already have to turn on air conditioning. By reducing radiant heat from entering through the attic, your home becomes much cooler, and your electricity bills decline.

Science dictates that heat moves from warm areas to cold areas, so the heat generated by your heating system naturally moves up toward your freezing attic. If you have reflective attic insulation installed, it transfers that heat back down and keeps the house warmer.

The reduced attic temperatures increase the efficiency of attic ductwork. This reduces cycle time and takes the pressure off your home's heating and cooling systems, thereby prolonging their life cycles.

IS REFLECTIVE ATTIC INSULATION RIGHT FOR YOUR HOME?

Every home is different, so the best way to determine if reflective attic insulation makes sense for your home is through a detailed attic inspection. Aside from assessing your existing insulation systems, an attic inspection can provide several other insights.

Attic inspections can uncover problems in the attic, such as mold growth from poor ventilation and energy efficiency issues due to poor air sealing and insufficient insulation. Please contact us if you're interested in getting a free attic inspection and quote for reflective attic insulation. We'll be happy to come to your home and determine if our reflective insulation products make sense for you and your home.