

Solar-SNAP™

Radiant Heat Barrier

FACTORS THAT EFFECT THE VALUE OF ADDING A RADIANT BARRIER

Radiant barriers, like Solar-SNAP, when installed properly, will always work. What's unknown is will its effect make a difference in "realized energy savings" and over what period of time. Proper insulation in the attic spaces, according to the Department of Energy, can reduce heat gain in ceilings by up to 35%, resulting in significant savings on home energy costs.

Radiant barriers maximize the potential effectiveness of common attic floor insulation systems and reduce the temperature of the attic space in the summer, greatly relieving strain on HVAC systems located within the attic space. Cold weather effectiveness is a result of heat's natural shift toward cold and the fact that heat rises, allowing most of the radiated energy to be reflected back and retained within the structure. Decreasing the heat load of the structure can often eliminate the use of air conditioning in the spring and fall when air temperatures are moderate.

Homeowners should be made aware of the factors effecting insulation requirements and potential energy savings in realistic terms. Each structure will have unique variables that will dictate the appropriate course of action. Some of the factors would include the pre-existing R-value and condition of insulation, how much direct sunlight the structure gets, use of the space as a storage area, the presence of any roof vents and any HVAC equipment within the space.

LET'S CONSIDER SOME OF THE FACTORS...

PRE-EXISTING INSULATION: more insulation= less savings

In most cases, when low R-value insulation is present, it will mean greater realized savings and value to install a radiant barrier. If a higher R-value (R-49) is present, savings would be minimal IF no other factors applied.

HVAC EQUIPMENT IS PRESENT IN ATTIC (AIR HANDLER AND/OR DUCT WORK):

Increased savings will be seen in this case because the air handler will be operating in a cooler temperature, allowing the unit to work more efficiently with less strain. If A/C Equipment is present, savings could be considerable even when high R-value insulation is present.

ATTIC IS USED FOR STORAGE:

Cooler temperatures in the attic (as much as 50°) could result in reclaiming previously unsuitable space for storage and the protection of the stored items.

A FEW SCENARIOS...

SOLAR-SNAP INSTALLED WITH NO AIR HANDLERS IN THE SPACE AND THE SPACE IS NOT USED FOR STORAGE.

If the customer has inferior insulation on the floor of the attic, the impact will be significant if not dramatic in both the summer and winter temperature extremes. As the quality (R-value) of the insulation increases, the effect of the radiant barrier on energy savings will decrease to a level of minimal or insignificant savings.

SOLAR-SNAP INSTALLED WITH AN AIR HANDLER IN THE SPACE BUT THE SPACE IS NOT USED FOR STORAGE.

The increased savings over scenario 1 as a result of the effect of cooler temperatures (as much as 50°). Allowing the unit to work more efficiently with less strain.

SOLAR-SNAP INSTALLED WITH AIR HANDLERS IN THE SPACE AND THE SPACE IS USED FOR STORAGE.

This is the scenario with the greatest realized savings and value.