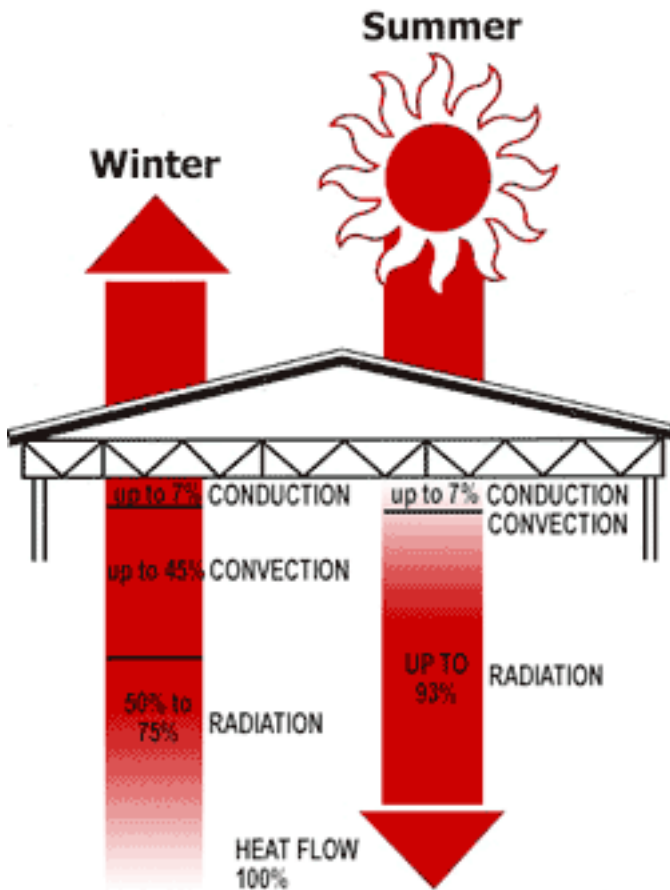


# RADIANT BARRIER

FREQUENTLY ASKED QUESTIONS AND ANSWERS



## Q. How does Radiant Barrier work?

**A.** Unlike mass insulation which only slows down or resists heat transfer, Radiant Barrier reflects heat. Heat naturally turns cold so the problem is to keep the heat in during winter and out during summer.

All objects and bodies give off radiant heat! Even the insulation in your attic gives off radiant heat to the cold attic space in winter and to the living space in the summer. Regular insulation won't stop radiant heat loss. It must be reflected with a radiant barrier.

There are three ways in which heat transfers from warm space to cold space:

- ▶ **Conduction:** direct heat flow through a solid object like a wall or ceiling.
- ▶ **Convection:** heat movement through air occurring when air is warmed. Warm air expands, becomes less dense and rises.
- ▶ **Radiation:** movement of heat rays across air spaces from one warm object to another cooler one. The heat we feel from a wood stove or quartz space heater is an example of radiant heat.

## Q. What is the "R" Value of RB?

**A.** The "R" value depends on the number and size of the airspaces surrounding the RB and on the direction of the heat flow. Since RB is usually installed atop the existing mass insulation, its R-value is a moot point. Its ability to reflect heat makes RB a great energy saver.

## Q. How can RB keep me warmer in winter?

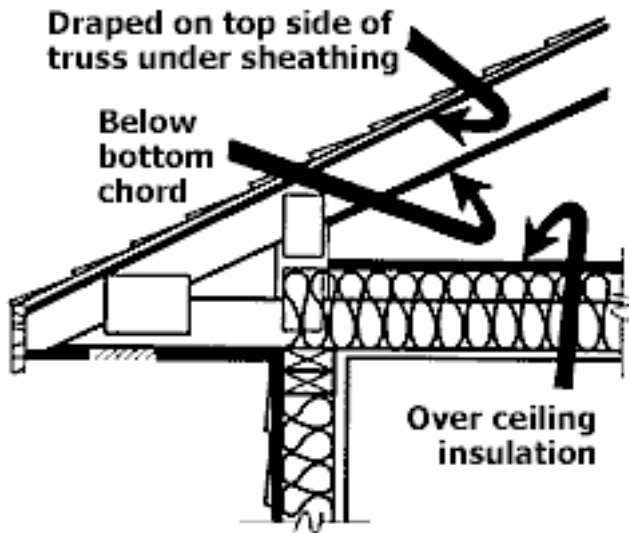
**A.** Just like wrapping a baked potato in aluminum foil keeps it warm longer by holding in the heat, covering your attic insulation with Radiant Barrier holds the heat in the house. Another analogy would be that in winter RB works just like a space blanket, which, although very thin and lightweight, holds in your body heat. A thin space blanket can keep you warmer than several heavy blankets.

## Q. How does it keep heat out in summer?

**A.** Like a space suit, Radiant Barrier reflects the sun's heat before it can warm up the insulation in your attic. When the insulation stays cooler, your house will too. Just like a space suit or Thermos bottle, the reflective surface inhibits radiant heat transfer. If the bottle starts out hot, it stays hot because very little heat is transferred to the cooler outside. If it starts out cold, it stays cold because very little heat is transferred from the warmer outside.

# DURA-SKRIM®

## SPECIFICATIONS



**Q. Will the roof be hotter with RB in my attic?**

**A.** No. Field tests in the south where Radiant Barrier is used extensively, shows no difference in roof temperature.

**Q. Do I have to remove my old insulation to install Radiant Barrier?**

**A.** No. Radiant Barrier actually makes your present insulation more effective.

**Q. Where do you install Radiant Barrier?**

**A.** RB can be laid over your present insulation like a blanket or stapled under your rafters or crawl space.

**Q. Isn't foil-faced Fiberglass just as good as RB?**

**A.** No. The foil on fiberglass is in direct contact with the attic floor. Aluminum foil becomes more conductive when in contact with a solid surface. The air space facing the foil surface is of primary importance.

**Q. I already have plenty of insulation in my attic. Do I really need Radiant Barrier?**

Regardless of how much insulation you have in your attic, adding RB will save on heating and cooling expense and keep you much more comfortable. Energy savings for heating and cooling can vary from 10% to 25% depending upon a number of factors including climate, materials used, site, building configuration, family size, and lifestyle, etc.

**Q. Has RB been tested by a qualified independent laboratory or government agency?**

**A.** The Florida Solar Energy Center at Cape Canaveral has tested radiant barriers in both small scale laboratory and full scale building models. Their results indicate that radiation barriers provide significant resistance to heat transfer.

Current tests conducted by the Tennessee Valley Authority, Oak Ridge Laboratories in Tennessee, and the University of Mississippi support those findings.

Northeastern Illinois University conducted winter tests in residential and commercial structures using infrared thermograph photography. The photos showed significant resistance to heat transfer over regular insulation.

Super "R" is used as an insulation against radiant heat transfer and can be used to its greatest advantage in instances where radiation is the predominant means of heat transfer.

The bright aluminum surface of all the Super R™ products provides insulation properties in two ways:

- ▶ As an excellent reflector of all long wave radiant heat that strikes it -up to 97% of all radiant heat.
- ▶ By reradiating only 3% of heat in which it comes into close physical contact, compared with approximately 90% reradiation of ordinary building materials at the same temperature.

