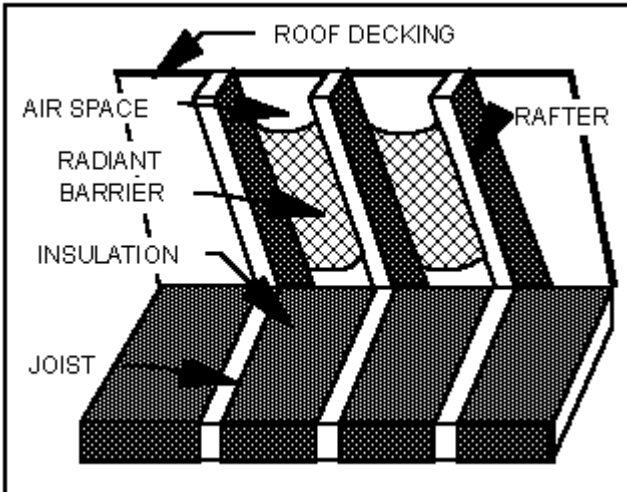


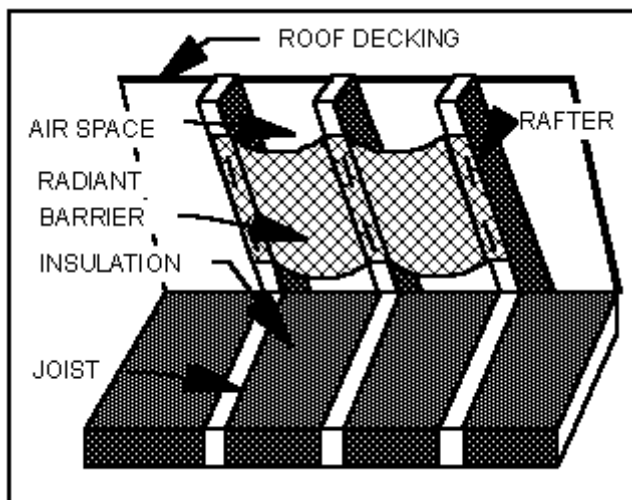
Department of Energy - Installation Procedures

Most residential roofs provide some type of attic or airspace that can accommodate a radiant barrier system. The following images show possible locations for the installation.

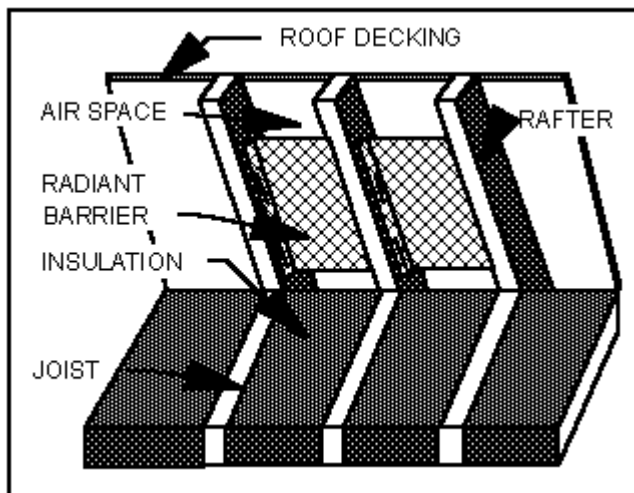
A space between the roof sheathing and the radiant barrier is necessary to provide a channel through which warm air can move freely.



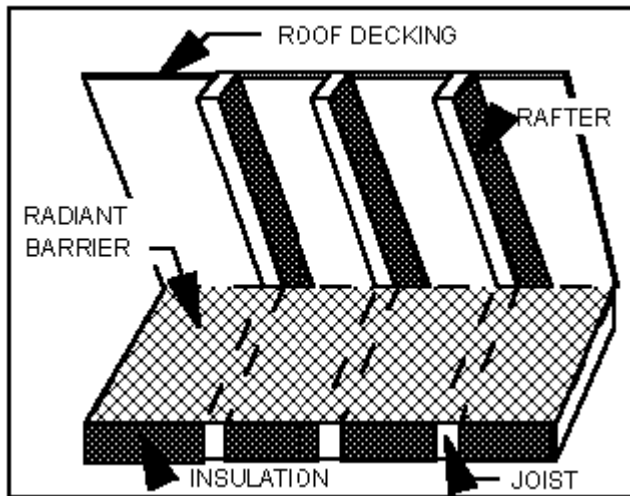
Before the roof sheathing is applied, radiant barrier is draped over the rafters or trusses in a way that allows the product to droop 2 to 3 inches between each rafter.



Radiant barrier is attached to bottoms of rafters or top chords of roof trusses.



Radiant barrier is attached to the sides of the rafters.



Radiant barrier is laid out on the attic floor over the top of existing attic insulation.

Of course, this location is not appropriate when a large part of the attic is used for storage, since the radiant barrier surface must be exposed to the attic space.

Also, kitchen and bathroom vents and recessed lights should not be covered with the radiant barrier.

To obtain the best performance, radiant barrier material should also be installed over the gable ends. For attics that are open to the space over garages or carports, the radiant barrier should extend eight feet or more into the garage or carport to achieve the same effect as installing a radiant barrier on the gable ends. It is not necessary to cover the gable ends if radiant barrier is applied to the attic floor.

Proper attic venting is important to obtain the best performance of the radiant barrier. Where no ridge or gable vents exist, it is recommended that one or the other be installed. Always check existing ridge vent systems to ensure that roofing paper is not blocking the vent opening, and check the soffit vents to ensure that they have not been covered with insulation.

The effectiveness of the existing attic insulation is dependent upon its thickness. When installing a radiant barrier, care should be taken not to compress batt insulation. R-19 batt compressed to 3-1/2 inches (to top of 2x4 attic floor joists) becomes approximately an R-13 batt.