

Radiant Barriers

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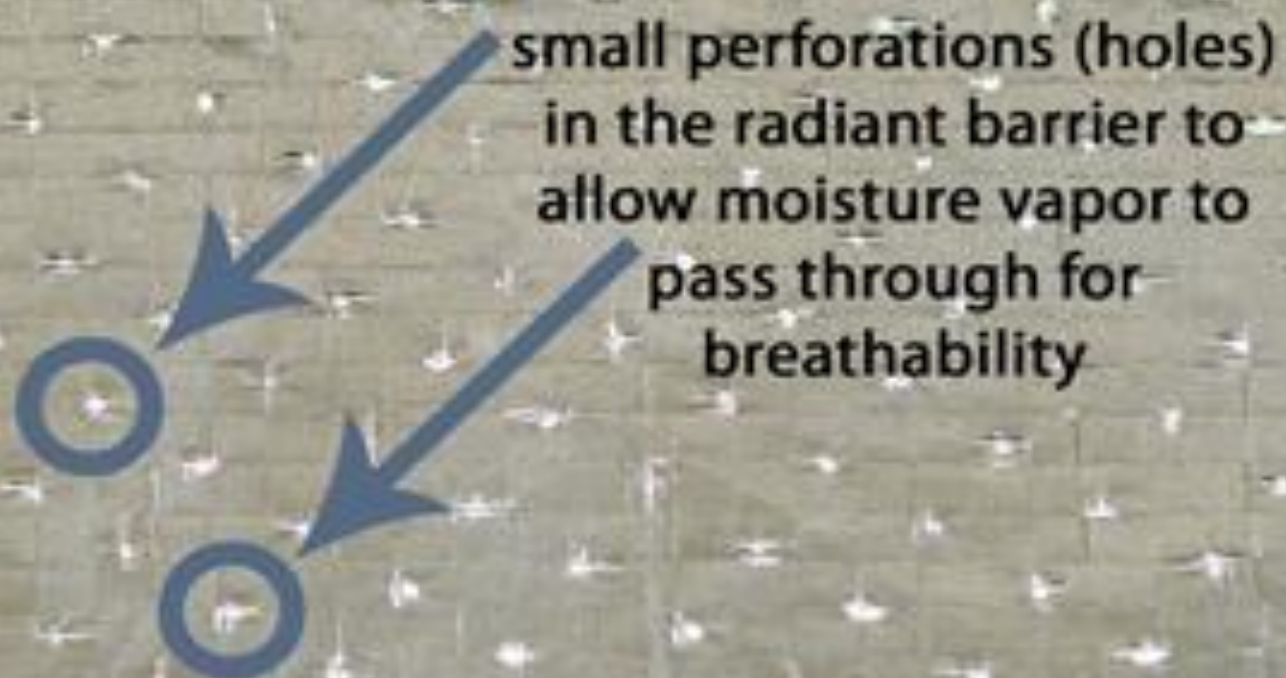
What is a radiant barrier?

Radiant barriers and interior radiation control coatings are designed to work in the attic to keep some of the heat from the sun away from the living space.

Properties

- Highly reflective material.
- Low emissivity = $<0.10\%$
- High reflectivity = $>90\%$
- Class A / Class 1 Fire Rating
- Non-toxic / non-carcinogenic
- Not affected by moisture or humidity
- Can lower both heating and cooling costs





small perforations (holes)
in the radiant barrier to
allow moisture vapor to
pass through for
breathability





Where required

ENERGY STAR v.3

CZ 1-3: If more than 10 linear feet of ductwork are located in an unconditioned attic, a radiant barrier or ENERGY STAR qualified roof product shall be installed.

2009 IECC

No

2015 IECC

Cool Roof or Radiant Barrier

Savings

(from Oakridge National Lab Radiant Barrier Fact Sheet)

The more ceiling insulation and the more duct insulation, the less dollar savings/year.

For Code insulation and well-sealed ducts:

- Zone 3 (Atlanta)
Savings \$.02/sq ft
- Zone 4 NW Arkansas (Baltimore)
Savings \$.01/sq ft

Radiant Barrier Decking Cost

Decking 7/16"

Home Depot \$14.97/\$12.37 = \$2.60

Ridout \$12.99/\$11.57 = \$1.02 difference

Lowe's

1200 sq ft 2-story 5/12 pitch

$$\begin{aligned} 1.083 \times (1200 + 210) &= 1527 / 32 = 48 \text{ sheets} \times \$1.81 \\ &= \$86.88 \end{aligned}$$

Thank you.

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