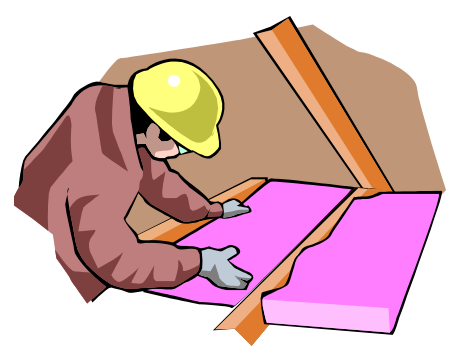


Insulation Basics

Insulation keeps cool air in, lowers energy bill

Common sense tells you that closing windows and doors keeps your air-conditioned air from leaking out of the house, but there's a bigger passageway to the outdoors right above you—your attic.

While the attic might not be the first place you think of when you crank up the a/c this summer, a properly insulated attic can save money on your cooling bill and help ensure a consistent temperature throughout the house.



Begin by checking to see how much insulation your house already has. Check the insulation's R-value, which determines how well it holds back heat. Look for attic insulation with an R-value between R-38 and R-44, or visit the Department of Energy's Web site to find the recommended insulation for your area (www.ornl.gov/~roofs/Zip/ZipHome.html).

To determine the R-value of the insulation in your house, first determine the type of insulation present, whether that insulation is new, and measure the depth of the insulation in inches. Look your insulation up on the table below, and multiply the R-value per inch by the number of inches present in your house.

Consider calling a certified contractor to install insulation properly. If you're a do-it-yourselfer, follow the directions for proper safety and ventilation.

Consider these tips when installing insulation:

- Properly seal ceiling edges and cracks.
- Install the insulation so it is continuous and even.
- Look for the Energy Star label



when purchasing insulation. The Energy Star designation means the product has passed rigorous government standards for energy efficiency.

Insulation Type	R-value / inch	R-value / inch
Flexible Batts		
Fiberglass	2.6	3.2
Rockwool	3.1	3.6
Loose-Fill		
Redwood Bark	1.0	1.0
Cellulose	3.2	3.5
Fiberglass	2.0	2.4
Rockwool	2.4	2.9
Perlite	2.3	2.7
Vermiculite	2.0	2.4
Rigid Foam Boards		
Polystyrene, large curd, molded		4.0
Polystyrene, small curd, extruded		5.0
Polyurethane		6.0
Polyisocyanurate		8.0
Foam-in-Place Insulation		
Urethane		6.0
Foam Roofing		8.0

An excellent website covering insulation is the [Department of Energy's Insulation Fact Sheet](#), produced by Oak Ridge National Laboratory