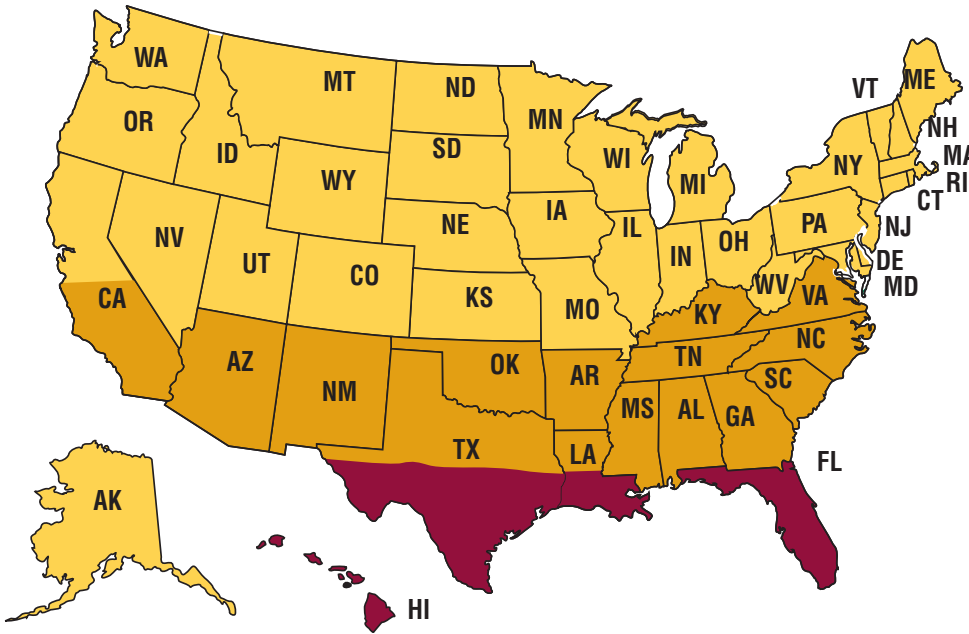


# R-Values for Optimum Home Energy Savings and Comfort



- Ceilings: R-49**  
**Walls: R-21**  
**Floors: R-30**  
**Basement Wall: R-13**
- Ceilings: R-49**  
**Walls: R-15**  
**Floors: R-30**  
**Basement: R-13**
- Ceilings: R-38**  
**Walls: R-15**  
**Floors: R-30**  
**Basement Wall: R-13**

## Your Home's Insulation May Be Below Code

The Energy Information Administration estimates that heating costs will increase an average of 50% this winter. Harvard University School of Public Health estimates that 65 million U.S. homes are under-insulated by the latest minimum codes. Adding insulation is one of the fastest, most effective ways to save energy in your home. Inadequate insulation is one of the main reasons why the average American home is losing between 10 and 50% of its energy each year.

## Recommended Areas to Insulate

### Attics

In most areas of the country, you should have an R-49 in the attic. This likely means adding an R-19 to R-30 layer of insulation to what you already have. Make sure you use unfaced fiber glass or mineral wool insulation when adding to existing insulation. This modest investment of time and money will help you save on your energy usage and improve your family's comfort for years to come. If you don't want to do-it-yourself, hire a professional insulation contractor to blow in another thermal layer.

### Basements

If the basement is an *unheated* space and isn't used for living area, insulate between the floor joists for the room above, instead of around the exterior or perimeter walls. This keeps conditioned air in the living areas where it belongs and out of the basement. Use unfaced fiber glass batt insulation which might be supported from below with wire or metal rods if necessary. If the basement is heated and used, you need to insulate the basement walls instead. The simplest method is to build 2 x 4 frames against the concrete foundation walls, insulate with fiber glass or mineral wool batt insulation and cover with drywall. If the

basement is finished, it is difficult to add insulation without tearing out drywall. Look to other areas of your home for places to add insulation that are easier to access.

### Crawl Spaces (unvented)

When insulating floors over unheated basements or crawl spaces, use kraft-faced fiber glass or mineral wool batts with the vapor retarder facing heated areas. Unfaced R-25 or R-19 insulation batts are usually cut into small pieces to fit snugly between the floor joists against sills and band joists. For insulating foundation walls of heated crawl spaces, use either unfaced insulation where the building code does not require a vapor retarder, or insulation with a special facing recommended for exposed applications. Don't leave kraft paper facing exposed.

### Floors

Insulating floors over unheated basements or other areas can not only save on heat loss but will make the room more comfortable. Use kraft-faced fiber glass or mineral wool batts with the kraft facing up against the subfloor. It's best to fill the space, so measure the depth of the floor cavity before you head to the store. You probably need six or eight inch wide batts.

### Walls

Most existing homes have some insulation in the walls. But if your home is 30 years old or older, it might not have any. It's best to hire a professional insulation contractor to blow-in insulation. Not only will it help reduce heat loss but it will make your home more quiet and comfortable.

### Other Areas

- Conduct a furnace checkup and replace filters (monthly).
- Caulk, seal and weatherstrip around windows, doors and the foundation.

*The map shows NAIMA's thermal recommendations based on both the U.S. Department of Energy's recommendations and the most recent minimum International Energy Conservation Code levels. These R-values provide the optimal level for energy savings and comfort. They may not be reachable in all existing homes, but homeowners should come as close as possible for the optimal effect.*

**You May Be Eligible to Receive a Tax Credit for Installing Insulation in Your Home.**

**Visit [www.SimplelyInsulate.com](http://www.SimplelyInsulate.com) to Find Out More**

**NAIMA**  
NORTH AMERICAN INSULATION  
MANUFACTURERS ASSOCIATION

NAIMA  
44 Canal Center Plaza, Suite 310  
Alexandria, VA 22314  
Tel: 703/684-0084  
Fax: 703/684-0427  
E-mail: [insulation@naima.org](mailto:insulation@naima.org)  
Website: <http://www.naima.org>

**The Higher the R-Value, the Greater the Insulating Power**