

Insulation Fact Sheet

Heating and cooling (“space conditioning”) accounts for 50 to 70% of the energy used in an average American home. Unless your home was constructed with special attention to energy efficiency, adding insulation is likely to reduce your utility bills.

It is possible to add insulation to almost any house. You may be able to do the job yourself if the structural framing is accessible – for instance, in unfinished attics or under the floor over an unheated space. Or, you may prefer to hire an insulation contractor. In either case, it is important to choose and install the insulation correctly.

Insulation is rated in terms of thermal resistance, called R-value, which indicates resistance to heat flow. The higher the R-value the greater the insulating effectiveness. R-value is often based on the thickness of the material.

There are several different insulation materials. Mineral fiber insulation includes fiber glass and rock wool. Fiber glass can be found as loose fill or blanket, either batt or roll. Along with rock wool, another loose fill insulation is cellulose. Cellulose is manufactured from recycled newsprint, cardboard or other forms of waste paper. Vermiculite and perlite loose fill products are no longer commonly used, but you may find them in an older home.

Whichever insulation you choose it is wise to follow these insulation priorities. Insulate your attic, including that attic door or hatch cover. Provide the recommended level of insulation under floors above unheated spaces, around walls in a heated basement or unventilated crawl space, and on the edges of slabs-on-grade. Use the recommended levels of insulation for exterior walls for new construction. When remodeling or re-siding your house, consider using the levels recommended for new construction in the existing walls.

For more information visit the U.S. Department of Energy’s insulation web site at www.ornl.gov/roofs+walls/insulation . This site will help you to determine what amount of insulation will give you the greatest energy savings. It also provides other valuable information.

Energy cost are high today and will be even higher in the future. Adding insulation will save money from the time it is installed, and over time will pay for it self many times over.