



# Effective Insulation

## City of Huntington Beach Green Building Tips

Unless your home was specially constructed for energy efficiency, you can usually reduce your energy bills by adding more insulation. Many older homes have less insulation than homes built today, but adding insulation to a newer home may also pay for itself within a few years. Additionally, plugging air leaks in your home with caulk, spray foam, or weather stripping can also have a great impact on improving your comfort and reducing your utility bills.



## R-Value

- An *R-value* indicates an insulation's resistance to heat. The higher the *R-value*, the greater the insulating effectiveness.
- The *R-value* depends on the type of insulation and includes its material, thickness, and density.
- When calculating the *R-value* of a multilayered installation, add the *R-values* of the individual layers. Installing more insulation in your home increases the *R-value* and the resistance to heat flow.
- Insulation's resistance to heat flow also depends on how and where the insulation is installed. For example, insulation that is compressed will not provide its full rated *R-value*. The overall *R-value* of a wall or ceiling will be somewhat different from the *R-value* of the insulation itself because some heat flows around the insulation through the studs and joists. Therefore, it's important to properly install your insulation to achieve the maximum *R-value*.

For energy efficiency, your home should be properly insulated down to its foundation. This includes the following areas: attic spaces (including attic access doors in unfinished attics and knee walls in finished attics); ducts in unconditioned spaces; cathedral ceilings; exterior walls; floors above unheated garages; foundations; basements; crawl spaces; and slab-on-grade floors.

Information derived from US Department of Energy

<http://www.eere.energy.gov/consumer/>

<http://www.energystar.gov>



Products bearing the Energy Star logo have been certified as meeting stringent energy efficiency guidelines established by the US Department of Energy and Environmental Protection Agency.



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