

# insulation

## The Facts :

*Adding insulation can cut your cooling costs anywhere from 15% to 45% depending on original amount of insulation, house size, air leaks and your energy use and living habits. The best places to insulate your home is your attic, walls and windows. Many variables affect the amount you'll save, but the fact remains that insulating your home is a wise energy investment.*

## Tips :

**Q :** *What does the term "R-value" mean?*

**A :** R-value is a measure of how well a material resists the passage of heat. The higher the R-value the more effective insulation is in keeping the home cool. Insulation should always be judged by R-value rather than inches, as different insulation materials have different R-values per inch of thickness.

**Q :** *How much insulation should I have in my attic?*

**A :** We recommend that attics should be insulated to R-30 whenever possible. There are many different types of insulation available, such as batt (fibreglass) or blown-in insulation, so do your research before purchasing.

**Q :** *How much ventilation should I have in my attic?*

**A :** In most cases, you should have one square foot of net free vent area for every 150 square feet of attic floor area. Net free area is the actual area that air flow can flow through. With vents and screens, you can assume that it is roughly half the gross area. If you have a properly installed ceiling retarder, you can reduce the vent area to one square foot per 300 square feet of attic area.

**Q :** *What should I look for when insulating my walls?*

**A :** Properly insulating internal and external walls are recommended when constructing or remodelling your home. We recommend a minimum of R-19 when insulating exterior walls. In older homes, don't assume you cannot add insulation because the walls are finished. There are a number of products available to fit your homes' needs. Contact a qualified contractor and do your research before purchasing.

**Q :** *Is it better to caulk my windows and doors on the inside or outside?*

**A :** Any large gaps on the outside should be weatherproofed to keep rain out, but the inside is generally the best place to caulk to keep the cool air inside.

**Q :** *My home has single-paned windows - would it be better to replace them with double-paned windows?*

**A :** If your existing single-paned windows are relatively new or in good shape, ensure they are properly weatherproofed. If your windows are damaged or if you are replacing them for aesthetic reasons, we recommend good quality tinted, double-paned windows, which work by creating an insulated air space between the panes of glass.

**Q :** *What are the most popular insulating materials used?*

**A :** Fibreglass (batt), polystyrene, radiant barrier and polycynene.

Fibreglass or batt is the most popular material for do-it-yourselfers because of its versatility, low cost and easy installation. It comes in rolls of varied thicknesses that match the most common roof framing sizes with R-values ranging from R-11 to R-38.

Polystyrene is simply foam sold in 4x8 foot panels, and is most commonly used on exterior and foundation walls. It can also be used to insulate roofs where the foam is applied against the plywood in the attic between the roof rafters.

Radiant Barrier is a double-sided aluminum barrier designed for installation under rafters or in any application where an airspace on both sides of the product is achieved. It will stop radiant heat transfers from entering your attic which will put less strain on air conditioners.

Polycynene is a spray-in place foam insulation with no harmful formaldehyde, chlorofluorocarbons (CFC's) or hydrochlorofluorocarbons (HCFC's). It goes in the walls and attic spaces of new buildings after framing as a liquid and expands to 100 times its initial size, filling every cavity completely and forming a permanent seal.

Remember, when planning to insulate your walls or attic, please consult a qualified contractor or air conditioning specialist and do your research before purchasing.

