Insulating Your Home

Heating represents more than 50% of household energy use (see “Household Energy Use and Electrical Appliances”). Yet in many buildings, a large proportion of heat is lost to the outside due to poor insulation.

Many houses are still not insulated very well. In a poorly insulated house, more than 50% of total heat losses occur through the roof and the walls (30% and 25% respectively). This unnecessarily increases the need for heating in the winter, which ultimately means more greenhouse gas emissions related to heating. And in the summer when it gets hot, there’s no natural cooling effect!

What can you do?
Invest in better insulation to reduce energy bills and your carbon footprint while making your home more comfortable! A poorly insulated roof can contribute to as much as 30% of household heating being lost, so making sure it’s well insulated should be first priority. The type of insulation to use depends on the kind of roof (flat or pitched) and whether or not the attic is designed to be a living space. If it is a living space, it’s important to insulate your roof; if not, it’s better to place insulation on the floor of the attic. It’s possible to choose environmentally-friendly insulation materials such as wool-hemp or cellulose wadding. Preventing moisture problems is important as condensed humidity can significantly decrease the efficiency of insulation. You can install a vapour barrier (e.g. aluminium sheet) on the interior side of the insulation.

Regions of the world
The U.S. Environmental Protection Agency has given more than 1 million energy-efficient homes the ENERGY STAR® label.

Did you know?
The walls of the Belgian Princess Elisabeth Station in Antarctica are about 53 cm thick and consist of nine different layers, making it possible to have a comfortable inside temperature even when it’s cold outside.