

# Insulation



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## Why install insulation?

Heat gain in summer and heat loss in winter through the ceiling accounts for around 30 % of total heat exchange. Another 10-20 % is lost through the walls. Insulation keeps your home cooler in summer and warmer in winter and this means lower energy bills and less greenhouse gas pollution from heating and cooling your home.

Climate change means summer heatwaves are going to be more severe, and with the cost of electricity going up, installing insulation will maximise the comfort of your home and keep your energy bills in check.

Even if you already have insulation, it can be worth topping up or replacing if it has been there for many years because it can settle and lose its effectiveness. Also much of the insulation installed to meet minimum building standards was just the minimal amount, and your home is likely to benefit from a top up.



More info about choosing insulation can be found here:

> [www.yourhome.gov.au/technical/pubs/fs47.pdf](http://www.yourhome.gov.au/technical/pubs/fs47.pdf)

## How does it work?

Insulation works by slowing down the transfer of heat from inside your house to outside and visa-versa. This means in summer you can keep cool air inside longer and in winter it is easier to keep the heat in. That way even if you use heaters or air-conditioners, they won't be needed for as many days, or for as many hours, and this can reduce your energy bill as well as greenhouse gas emissions.

Insulation can be installed in ceilings as well as walls and even under floorboards. It is important to combine insulation with passive cooling techniques such as window shading and ventilation to reduce any 'oven effect' from poor building design.

The R-Value refers to the ability of a material to resist heat transfer. For Melbourne, we recommend the minimum ceiling insulation is R 3.7, and wall insulation should be R 2.2.