

How to install floor insulation

Floor insulation, along with ceiling and wall insulation, can save you up to 45% on your home energy costs.

Insulating your timber floor during your renovation is essential in Victoria's climate to keep your home warmer in winter. Timber floors add a stylish, contemporary look to a home and are a common choice in renovations today. The common practice is to rip up carpet from your existing timber floors and polish them to achieve a timber look. However, your existing timber floors are often filled with gaps and cracks which can leak heated and cooled air from inside your home.

During a renovation, the carpet gets pulled up or floorboards get replaced or removed, which provides a perfect opportunity to add insulation under your existing timber floor.

Insulating your floor can reduce the cooling effect of the sub-floor space during the night in summer, so make sure that you ventilate your house during summer evenings.

Carpet and rugs can also be useful in adding an insulating barrier between you and the cool air under the house in winter.



HEALTH AND SAFETY WARNING

Installing insulation (particularly in ceilings) carries some potentially serious risks, such as electrocution. For this reason we recommend that you employ an experienced professional who has the required skills and knowledge to complete the job safely, rather than risk doing the job yourself.

Learn more.

How to guides

[How to select insulation](#)

[How to install wall insulation](#)

[How to check your ceiling insulation](#)

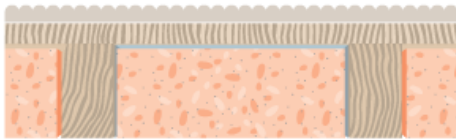
Step1: Select the right insulation

There are a range of insulation batts that may be suitable for your underfloor insulation, including polyester, glass wool, rock wool and natural wool. The recommended R value for underfloor bulk insulation is between R1.5 and R2. We've provided some information for you on how to [select the right insulation](#).

Extruded or expanded polystyrene insulation boards can also be used in underfloor insulation. These types of insulation can also be combined with reflective foil to form a blanket that helps create an insulated barrier from the outside air.

Step 2: Installing floor installation

Batts should be installed snugly in between the timber floor joists. The batts can be held in place with tape if needed, or a layer of reflective foil can be installed (shiny side down) to achieve a greater benefit.



**FLOOR
INSULATION**

Insulating a concrete slab

Thermal mass from a concrete slab can be effective in winter due to its ability to store heat during the day and release it later.

Thermal mass stores heat either from direct solar radiation or by absorbing heat from the air.

If you are creating a new concrete slab as part of your renovation, be sure to:

- Place your slab where it can receive northern sunlight – the slab will heat up during the day and release that heat slowly into your home in the evening
- Use polystyrene pods in your slab to improve its thermal performance
- Add slab edge insulation to stabilise the concrete from fluctuating air temperatures.

Tips

When deciding what type of insulation to install, consider the following:

- The energy efficiency rating, or its R value. Between R1.5 and R2 is recommended for underfloor insulation, except in cooler climates where higher R values are better.
- If the insulation will cover underfloor ducts for heating systems, ensure that the performance of the ducts is not impeded by the installation of the insulation.
- The acoustic performance (i.e. its Sound Transmission Class (STC))

rating), as sound can still enter the home from unsealed underfloor spaces. Heavier weight insulation products, such as rock wool, tend to have the best sound reduction performance for a given width.

- The structural integrity of the product. Underfloor insulation should fit snugly and securely between the floor timbers. There are products on the market that offer better strength and rigidity, so consider these products for your underfloor insulation.

Questions to ask

Are you looking to have your floor insulation installed by your builder or an insulation installer? Installing insulation into the underfloor space carries potential risks and requires expert knowledge, so it's important to ask the right questions.

Will your installer take the appropriate safety precautions?

Some types of insulation require the use of specialised equipment, such as masks and protective clothing, when working in the underfloor space. Your insulation installation companies should be able to advise you on the appropriate safety precautions for your installation.


Will the insulation be correctly installed?

Your builder or installer should take care to ensure that the installation does not compromise the quality of your underfloor ducted heating system (if you have one). They should also make you aware of any possible condensation issues in the underfloor space.

Can your installer guarantee good coverage?

Not all houses will have appropriate access to the underfloor space. Ask the installation company whether all sections of your underfloor area will be covered in the installation. A minimum underfloor height of 600mm is required for safe installation.

More information

Various Australian Standards and National Codes of Practice cover the installation of insulation products. For more information on installing insulation visit the [Insulation Council of Australia and New Zealand \(ICANZ\) website](#) .