Using 100% Pure in External Walls

Sheep Wool Insulation Can Be Installed In A Variety Of External Walls, Including Structural Timber Frames, Dry Lining And Stud Frame.

External Walls: Structural Timber Frame

The insulation is installed between the timber studs and is ideally stapled into place to ensure permanent performance.

This is an important element to insulate as it can account for up to 30% of heat loss from a building. After installing the insulation, the wall can be sealed with a vapour check to improve airtightness.

The depth of insulation used is typically the same as the depth of wall stud. Today, common stud depths are 150mm and 200mm. The greater the stud thickness, the higher thermal performance of that building element. Timber frame external walls will usually require a number of layers to achieve the desired thickness.

External Walls: Dry Lining

Dry lining is a term applied to the use of (typically) plasterboard on timber or metal frames. It is a replacement to conventional building practices ('wet trades') where brick or block, or more traditionally lath and plaster would be specified.

The term dry lining strictly applies to the use of plasterboard to replace a sand and cement or wet plaster finish to internal blockwork, although it's use has become more broadly associated with internal fit out throughout the building.

External Walls: Stud Frame

Sheep Wool Insulation can be used in stud frame walls, where the studs are separated from the external wall by a cavity. The insulation is installed between the studs.



SheepWool Insulation - Unit 1, Railway Business Park Rathdrum, Co. Wicklow



In Internal Walls

Sheep Wool Insulation Can Be Installed In A Variety Of Internal Walls, Including Timber And Metal Stud Walls. Installing Wool Insulation Into Internal Walls Will Improve Both Thermal And Acoustic Insulation Performance.

Sound & Heat Insulation

The insulation is rolled between the studs to fill, or partially fill the cavity. This slows down heat transfer between rooms and reduces the cavity through which soundwaves can travel. This application is common in all building types.

Insulating internal walls improves your ability to control heat transfer within a building. Although the heat may not be lost if it passes from one room to another, it may be passing into a room that is less often used and thus the energy is wasted.

Fills Cavities

The thickness required will ideally be the same as the cavity it is filling, such as 75mm or 100mm. As the heat is not escaping the building, there is no thermal insulation regulation for this application.

Premium or Optimal insulation rolls are suitable for this application.



SheepWool Insulation - Unit 1, Railway Business Park Rathdrum, Co. Wicklow



It is a particularly important element to insulate well as it can account for up to 35% of heat loss from a building and is typically the weakest line of thermal defense in all such house types.

To maximise the performance of insulation at ceiling level, a significant thickness is required. This may require installation using a number of layers. A 25-50mm ventilation gap may be required if the roof has a non-breathing or no membrane installed. In houses with shallow rafters, this might mean adding additional counter rafters to meet requirements. Although this may mean additional effort at the time of installation, it offers a significant long term energy saving advantage.

Premium and Optimal insulation rolls are suitable for this application as they can be installed in the sloping rafter and stapled into place.

The images below show some examples of this type of application, Sheep Wool Insulation Premium Roll being installed between rafters.









SheepWool Insulation - Unit 1, Railway Business Park Rathdrum, Co. Wicklow



installed at Rafter Level (Optimal)





SheepWool Insulation - Unit 1, Railway Business Park Rathdrum, Co. Wicklow



Using 100% Pure

On The Ground Floor

At Ground Floor Level, Sheep Wool Insulation Can Be Used To Minimise Heat Loss Occurring Through The Floor. This Application Is Very Important As Up To 25% Of Heat Loss From A House Can Occur Here.

Supporting Timber Floors

To support the insulation in the suspended timber floor, a breathable membrane should be installed. The membrane can be draped over the joists and stapled into place to create a 'tray' in which the insulation can be unrolled. The depth of the tray should be approximately equal to the depth of the insulation being installed.

If the floor is not being removed and there is enough access, the insulation can be installed from underneath. Again a membrane to hold the insulation in place would be required. This method of insulation is very popular in existing buildings as suspended ground floor joists are common and are uninsulated a great number of homes.

Premium or Comfort insulation rolls are suitable for this application, with Premium giving a superior performance and Comfort being the lower priced. For the purpose of these calculations, Comfort has been used.





SheepWool Insulation - Unit 1, Railway Business Park Rathdrum, Co. Wicklow



The most Common Applications For Sheep Wool Insulation Is On The Floor Of The Attic (Or Loft), Referred To As Ceiling Level Insulation,

Attic/Loft: Ceiling Level

This application ensures that heat generated within the living space does not pass into the attic and escape. This application is also one of the most important as up to 35% of heat loss from a house can occur here. To maximise the performance of insulation at ceiling level, a significant thickness is required. Ideally, this would be installed in a number of layers, between and covering the timber joists thus reducing the opportunity for heat to escape through them (known as thermal bridging).

In houses with shallow joists, this might mean adding additional joists, or counter joists, if a floor is to be installed afterwards. Although this may mean additional effort at the time of installation, it offers a significant long term energy saving advantage. Premium or Comfort insulation rolls are suitable for this application, with Premium giving a superior performance and Comfort being the lower priced.

The images below show some examples of this type of application:







SheepWool Insulation - Unit 1, Railway Business Park Rathdrum, Co. Wicklow



ATTIC INSULATION



Instructions

Before you start:

Health and Safety:

Safety while moving around:

If your attic does not have a floor installed, you must only put weight on the beams traversing the attic floor, called the joists. The material between the joists is usually made from plasterboard or light wood and is not designed to take weight. Do not step between the joists or you are likely to put a hole in the ceiling below and may injure yourself too. Using a number of strong boards laid across the joists is the best method to disperse your weight on the attic floor. Be also careful when standing up as low ceiling heights in your attic can often be a real headache!

Materials:

Sheep Wool Insulation Staple gun and 1 packet of 0.5inch staples Drapers (or tough) scissors

Measuring Tape

Clothing:

Sheep Wool Insulation is perfectly safe to handle and requires **no** specialised clothing or equipment. If your attic is particularly dusty, you may prefer to use a dust mask during preparation. A helmet is also a good idea in protecting your head from hitting the rafters.

Where to place the insulation:

If your attic space is only to going be used for storing items that do not need to be kept warm then it is only necessary to insulate the floor of the attic. If the attic has been converted into a room or you are planning to convert it into a room then insulate the roof, crawl spaces, dwarf (side) walls and overhead. This makes sure that you are only heating and keeping heat in the living space of your house.

Insulating your attic floor:

Preparation:

To prepare the attic for insulation, thoroughly clean the floor space and vacuum between the joists to remove accumulated dust. This is a good opportunity to examine the attic structure for woodworm or dry rot and where necessary a specialist should be called to resolve any problems. Also check that the wiring is in good condition and that the conductive core is not exposed. Good lighting is required when insulating your attic, so if you do not have a light installed, plug in a safety light and hook it to a high point for maximum effectiveness.

Installing:

Sheep Wool Insulation absorbs moisture from the atmosphere during damp seasons and releases it during the dry seasons. For this reason, a vapour barrier is not required and the material can be placed between the joists, directly on top of the ceiling below. If there already exists a small layer of older insulation material e.g. Fibreglass, you can simply lay the Sheep Wool insulation directly on top of the older material.

The spacing between the joists varies with each type of house but 370mm is about average. This is ideally insulated with a 380mm wide roll of insulation as the excess will provide a snug fit between the joists. Start at the furthest point from the attic door and unroll the insulation to fit between the joists. It is advisable to leave about a 50mm gap between the insulation and the eaves to allow air to circulate through the attic. Lightly press the insulation into the space between the joists but be careful not to compress the material. Cut the insulation when you reach the end eaves, again leaving a 50mm gap for ventilation. When joining two rolls, press both ends tightly together to create a close join. Place the insulation under electrical wiring to avoid potential overheating and where possible, fix cables to the side of joists to keep them safe from harm.

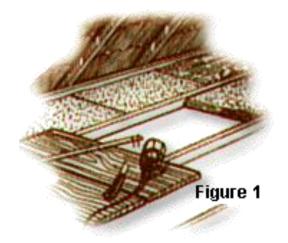
Insulating your roof.

For most insulation materials, one of the most important concerns in insulating an attic is the ventilation and airflow in the attic. Warm airborne moisture that drifts upwards from the rooms below will condense in the cold insulation materials and reduce their effectiveness. Sheep Wool Insulation actually absorbs this moisture, in fact up to 40% of its own weight before its performance is affected. For this reason, Sheep Wool Insulation can be placed directly against a breathable roof-felt in an attic and prolong the life of the timber rafters by drawing the moisture into its own fibres. You may need extra tape or nails to secure it into position on the roof area.

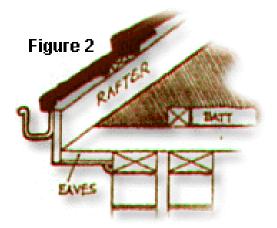
Because Sheep Wool insulation is easy to handle installation is simple, just follow these easy to use instructions:

- Take enough Sheep Wool Insulation into the attic for the complete job, and spread around for easy access.
- Place kneeling boards across at least 2 ceiling joists for support.(Fig. 1)

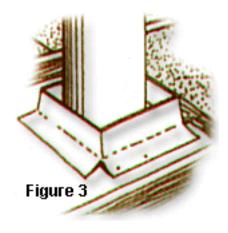
Start at the furthest point from the attic door.



- Lay rolls to the wall edge and if you have ventilated eaves, ensure they are not blocked. (Fig. 2)
- Fit rolls tightly between joists.
- Use positioning stick to lay rolls in hard to reach areas.
- Do not cover gas vents or exhaust fans.



- Leave 50mm gap around chimneys and flues (Fig. 3)
- We do not recommend the insulation be placed directly over recess lighting. We can supply down lighter covers if required.
- Trim rolls to fit uneven shapes and fill gaps.
- It is not necessary to insulate under the cold water tank as the warm air during the winter will keep the water from freezing. You may need to strap it to the side of the tank to hold it in position.
- Make sure to also insulate the attic door and any loose and leftover pieces of insulation can be stuffed around pipes and any other areas that heat may escape from the room below.
- Fix a roll to top of manhole cover to complete job.





SheepWool Insulation :Unit 1, Railway Business Park Rathdrum, Co. Wicklow Ph : 0404 46100 <u>www.sheepwoolinsulation.com</u> UK: Ph : 0371 218 5218 <u>uk@sheepwoolinsulation.com</u>