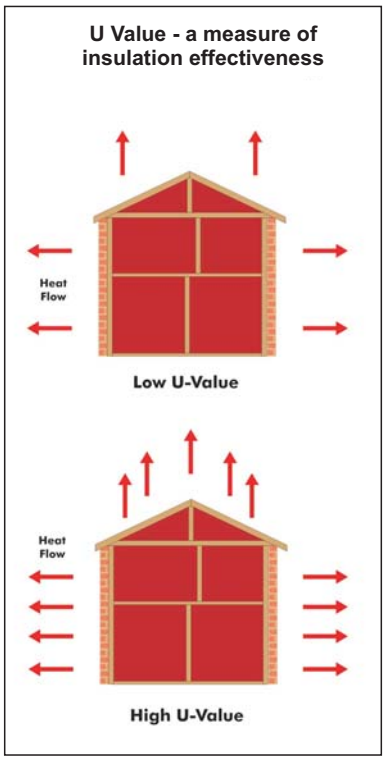
RAFTER LEVEL ROOF INSULATION
Homeowner Information

An un-insulated or poorly insulated roof costs you money and harms the environment through excessive Greenhouse gas emissions.

There is now grant aid available through the SEI Home Energy Savings scheme to help you improve your home using roof insulation.

Up to 30% of the heat produced in your home may be escaping through your roof if it is un-insulated. Even if you already have insulation in your roof, you may still be losing heat if it is not up to the level specified in the most recent Building Regulations. You may want to replace it with a higher-performance insulation material.



Case Study

Mary has a four bedroom detached house with a footprint of 150 m^2. She has an annual heating bill of €1,600. Mary previously had 100mm of **fibreglass insulation** between her rafters but decided to upgrade the insulation in her attic to 100mm of a **rigid foam insulation** following advice from SEI and various contractors she rang. As well as resulting in more comfortable living conditions, the upgraded insulation now saves Mary €200 every year on her home heating bill. Mary was also able to secure grant aid from the Home Energy Savings scheme to help her with the cost of this. Typical costs for this type of upgrade are approx. €2,500 - €3,500 (excluding grant).

The Benefits of Attic Insulation

- Reduction in heating bills
- Increased comfort levels
- Low capital cost
- Short payback periods
- Reduction in Greenhouse gas emissions

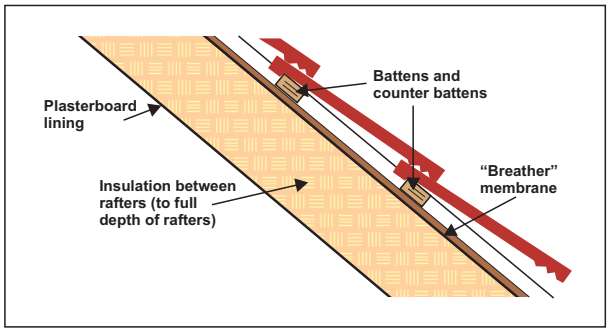
Effectiveness of Insulation

The effectiveness of an insulating material is measured using a 'U-value'. A U-value is a measure of how much heat is conducted through a structure. Insulation installed correctly will have a low U-value as it will allow only small amounts of heat to pass through, thereby keeping your home warm. Homeowners availing of rafter-level roof insulation grants under the Home Energy Savings scheme should aim to achieve a U-value of 0.20 W/m^2K or better (i.e. lower). It is vital that you ask the installer that the price quoted will achieve the required U-value or the best U-value that can be achieved in your circumstances.

Key Roof Insulation Facts and Tips

Insulation Materials

Typical insulation materials used are semi-rigid insulation boards as well as glass/mineral fibre batts. The insulation material you choose may depend on the depth of your rafters. The optimum solution for your specific case should be discussed with the Contractor. The insulation boards should be installed between rafters, leaving a gap between the insulation and the felt. There should also be a layer of insulation across the underside of the rafters to minimise heat loss.



There are several 'multifoil' products appearing on the market that may achieve impressive levels of insulation on their own. If you are considering using a multifoil insulation in conjunction with another insulation material, it is important to check any installation requirements with the supplier and where required the contractor should use an NSAI Agrément certified product.

Insulation Integrity

Installing insulation properly is very important. Where insulation is installed between rafters, it is important that it is cut tight and is installed with no gaps. Any gaps between the insulation and the rafters will cause it to become ineffective, as heat loss will occur in these areas. Any gaps between the insulation board and the rafter should be sealed appropriately.

Ventilation

Adequate ventilation is important in a roof to help prevent condensation settling on the rafters as this may cause rotting of the wood. It is therefore important to ensure ventilation openings at the eaves of the house are left unblocked and the air is allowed to pass between the insulation and the felt across the roof.

I Need Roof Insulation….What Do I Do next?

a) Get more information on the Home Energy Savings scheme in one of three ways:

- Download more information from www.sei.ie/hes
- Request more information by ringing 1850 927 000
- Contact the scheme directly at hes@sei.ie

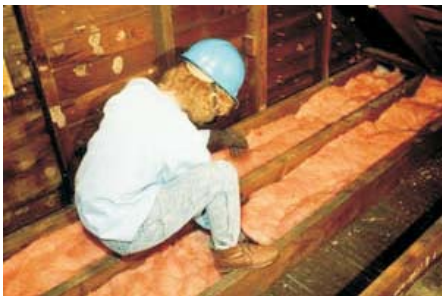
b) Contact a registered contractor for rafter level insulation from the SEI registered contractor list available on www.sei.ie.*

c) Once you have selected a suitable contractor, complete the Home Energy Savings Scheme application form

d) Consult the SEI Home Energy Savings scheme Buyers Guide below and the SEI Guide “Detailed Guide to Insulating Your Home” available at www.sei.ie.

*It is recommended you contact a number of registered contractors to ensure you receive the best quality available at a competitive price

A Buyers Guide to Roof Insulation



Choosing and installing roof insulation should not prove to be a difficult process. However, there are important decisions to make and a few rules to apply to ensure that your attic insulation will be to your satisfaction and meet your requirements.

It is vital to look for high quality when choosing your roof insulation. When choosing a product, you should ask your supplier or contractor to demonstrate to you how and why the proposed insulation product meets the performance requirements of the Home Energy Savings scheme and that it complies with all relevant Building Regulations.

Please visit www.sei.ie/hes for a list of registered contractors for this scheme. We recommend that you shop around and view other installed systems before making your final decision in order to get the best product and the best value for money. It is a good idea to discuss attic insulation with any friends, neighbours or workmates who may already have it installed, to give you a better insight of advantages, improvements and any problems people have experienced when they had it installed.

Questions to ask your supplier and contractor

SEI have compiled a list of questions you should ask your suppliers and contractors prior to making a purchase. It is in your best interest to make sure you are satisfied that all your questions are answered. If an answer seems too complicated, then ask for a simpler explanation. If someone is selling you roof insulation they should be happy to provide an explanation to your satisfaction.

Sizing and Design

- What type of attic insulation would the supplier recommend for my dwelling? Why are other types less suitable?
- What type and amount of insulation should I install in order to achieve the most cost effective solution?
- What thickness of the recommended insulation will I need to achieve the required U-Value (0.13W/m^{2}K for ceiling level insulation, 0.20W/m^{2}K for rafter level insulation)?
- If I need storage space in my attic, where is the best place to have this, and how will the insulation be designed to minimise any heat loss caused by having an attic storage space?
- Will the insulation be installed according to the manufacturer's installation instructions?
- Will the system result in any dampness or condensation on the walls or trouble with ventilation? How will this be

addressed/avoided?

Equipment

- Is the product approved by Irish Standards (IS), British Standards (BS) or European Standards (EN)? If not, why not?
- Is the product NSAI Agrément certified?
- Is the product suitable for my attic?
- Is the product sufficiently fire resistant?
- Will the product affect the ventilation in the attic when installed?
- I want to use my attic as storage, what is the best type of insulation for my home?
- Will my water storage tanks and pipe work in my attic be insulated as part of the works?
- Will a walkway to the water storage tank be included in the works?
- How will the installation affect the Building Energy Rating (BER) of the dwelling?
- Will the installation satisfy all rules and requirements for the receipt of a grant under the Home Energy Savings scheme?

Installation

- Is the contractor on SEI's list of Registered Contractors? (Remember, if the contractor is not listed you cannot apply for or receive a grant under the Home Energy Savings scheme)?
- Can the installer complete work in accordance with best practice guides/technical guides supplied by the material supplier?
- Does the supplier offer delivery, installation and after sales service?
- What level of training do the installers involved in the installation have?
- Which trade associations' do the installers belong to?
- How many similar systems has the contractor installed? Are local references available?
- How long will the installation take?
- What additional pieces of work need to be done to my home/attic to prepare for the installation? Will the contractor provide all of these services and at what cost?
- What work will need to be carried out to get my home back to its original condition? Will the contractor provide all of these services and at what cost?

Costs and Payment

- Does the quotation cover all costs associated with the works?
- What is the range of annual cost and energy savings under average conditions?
- What are the financing options or payment terms? At what stage will I get my SEI grant payment?
- Are there any additional costs?

After-Sales Service

- Is there any guarantee with the insulation?
- Is any professional maintenance (by the Contractor or similar) required? If so, how often?
- For how long does the supplier provide emergency service work if required?

NDP National Development Plan 2007 - 2013

Funded by the Irish Government under the National Development Plan 2007-2013 with programmes part financed by the European Union