



# EcoQuilt<sup>TM</sup> 45



## EcoQuilt45 Multi-layered Foil Insulation Technical Data & Installation Guide



**ECOHOME INSULATION**

# EcoQuilt45 Multi-layered Foil

## Insulation 15m<sup>2</sup>

EcoQuilt45 Multi-layered Foil Insulation 15m<sup>2</sup> – EcoQuilt45 is an advanced version of Ecohome Insulation's best seller EcoQuilt Expert.

EcoQuilt45 provides higher thermal benefits due to being 45mm, whilst still compressing to just 7mm!

### Key Applications & Performance

- EcoQuilt45 achieves R-values of 2.63 in walls and 2.19 for roofs (Core R 1.29) This multi-layered blanket is extremely versatile and is popular in the following applications;
- Pitched Roof Under Rafters
- Flat Roofs – Under Joists and Over Joists
- Loft Floors / Ceiling Levels
- Solid & Cavity Walls
- Timber Frame Walls
- Concrete Floors
- Suspended Timber Floors
- and Many More!

### UK's Premium Affordable Multifoil

- EcoQuilt45 has been tested, compared to SF19+ made by SuperFOIL.
- Our in-house testing provides an core R-value on EcoQuilt45 of 1.29. SF19+'s tested R-value comes out lower at 1.27. This is despite SF19+ claiming on it's website it's R-value is 1.63. SF19+ has lost it's BBA certificate due to this.
- EcoQuilt45 is developed and manufactured near Sheffield, UK. SuperFoil's range including SF19+ is an imported product from China and currently holds no accreditation.

Free Nationwide Delivery on  
EcoQuilt45 to the UK Mainland!

### Key Features:

- UK Manufactured
- Flexible, Thin & Easy to Install
- Equivalent to 70mm PIR
- Use in Roofs, Walls and Floors
- Save on energy bills
- Proven to Save Cost & Space vs PIR
- High Performing Vapour Control Layer
- Made from 83% Recycled Materials
- Non-degradable materials, maintaining performance and integrity
- Roof R-value – 2.19m<sup>2</sup>K/W
- Wall R-value – 2.63m<sup>2</sup>K/W
- Floor R-value – 5.56m<sup>2</sup>K/W



# How To Install EcoQuilt45 on Roofs and Walls

EcoQuilt45 is a versatile multifoil for roofs, walls, floors, and many other applications! The below guide is a generic guide for insulating internal on pitched or flat roof timbers, or the internal of a vertical stud wall. when measuring cost vs performance.

## Method Steps

### 1. Fitting Information

Watch our [How-To Video](#) to see how easy it is to install EcoQuilt45 in various applications.

### 2. Measure the Area and Cut the EcoQuilt to Size

Measure the area of either the wall / roof section depending on where you would like to insulate first and cut. You can cut using either our Cutting Knife or Multifoil Scissors. Both of which come part of the Multifoil Fitting Kit that we supply.

### 3. Staple EcoQuilt to the Timber

Proceed by stapling the Multifoil Insulation directly to the timber (whether that be the Rafters, Studs or Battens). This is the best way to enable the EcoQuilt45 to perform, as it provides a air cavity behind the insulation. When stapling, leave 300mm intervals.

### 4. Proceed until Full Coverage

Install the Second Strip of EcoQuilt45. **IMPORTANT:** overlap the EcoQuilt45 by 50mm, on both the horizontal and vertical joints.

### 5. Tape - Using ThermaSeal Foil Joining Tape

Use the ThermaSeal Foil Joining Tape - to tape and seal all the joints and edges. You will need to ensure that the EcoQuilt45 is fully taped and sealed around the perimeter, as this creates the vapour control barrier.

### 6. Counter Batten and Plasterboard

Once the EcoQuilt45 Layer has been installed - install a secondary set of battens over the top of the insulation. We advise using between 400mm and 600mm centre battens. You can then proceed with your internal finish, over the battens.



# How to Insulate Your Loft Floor Without Using Fibreglass

This How-To Guide will display how to insulate your loft floor with our house blanket EcoQuilt45. EcoQuilt45 does not give off any harmful gasses or floating fibres and does not shrink or degrade over time (unlike fibreglass) In addition, you can easily board the loft space which is useful for storage.

## Method Steps

### 1. Remove Existing Mineral Wool Insulation

Start by removing the existing loft insulation. Ensure a mask and protective clothing is used to avoid irritation to the skin.

### 2. Installing first run of EcoQuilt

Measure out the length of material required, then roll our EcoQuilt45 Expert over the joists. EcoQuilt45 can be simply be cut using scissors or a cutting knife - Both available in our Multifoil Fitting Kit. Ensure when the second run of EcoQuilt is installed the layers are overlapped by 50mm.

### 3. Recess and Staple EcoQuilt

Staple EcoQuilt45 on both the top of the joists, and also on the sides when recessing. We recommend the use of a 25mm batten to use as a template, this will ensure accurate and correct air gaps throughout the floor area. The benefit of recessing is to create a cavity without the use of a batten. When a cavity is formed, optimum performance is gained from the insulation as this will reflect properly.

### 4. Taping & Sealing

Ensure all overlaps are fully taped and sealed using Thermaseal Foil Tape. Ensure the brick walls are dust and debris free. Fully tape and seal around the perimeter with Thermaseal Tape. This will ensure EcoQuilt45 works as an Insulating Vapour Control Layer. It will avoid any air leakages, and keep the heat on the internal.

### 5. Install Second Layer

You then have the option to install a 2nd layer of EcoQuilt45 taut over the joists, Using an additional layer will maximise the heat retention. For further installation benefits, use a 25mm batten over the joists.

### 6. Installing Loft Boards

Once EcoQuilt45 is installed, you have the option to install loft boards. If 1 layer was used, you can screw through the insulation into the joists. If 2 layers has been installed, you would screw the loft boards into the battens



# How To Insulate Your Solid Walls With EcoQuilt45

EcoQuilt45 is a thermally high performing multi-layered blanket for Solid Walls. EcoQuilt45 can achieve an R-value in a Wall of  $2.63\text{m}^2\text{K/W}$ . The depth of this multi-layered blanket alongside the battens and plasterboard will take up a thin profile of 67.5mm whilst providing excellent thermal benefits.

## Method Steps

### 1. Install Timber Battens

Start by installing 25mm battens directly onto the solid wall, horizontally or vertically at 400 to 600mm intervals.

### 2. Cut to desired length

Roll out EcoQuilt45 to the desired length, before cutting with a Cutting Knife or Multifoil Scissors, both available in our MultiFoil Fitting Kit. Check out this tutorial on how to professionally cut your insulation.

### 3. Stapling the EcoQuilt45

Begin at one end of the wall, hold up EcoQuilt45 to the right position and staple into place at 300mm intervals. We recommend using a Heavy-Duty Staple gun and 14mm staples. Make sure EcoQuilt45 is pulled taut to allow product to expand & reflect into cavities. Repeat stapling across the wall and around perimeter. When installing the next run of EcoQuilt45, we recommend overlapping by a minimum of 50mm.

### 4. Using Thermaseal Foil Joining Tape to seal

Once EcoQuilt45 is applied, begin to tape and seal all overlaps using ThermaSeal Foil Joining Tape around the perimeter and the overlaps to prevent condensation and to create an airtight barrier. We recommend 1 roll of Thermaseal Foil Joining Tape for  $30\text{m}^2$  of EcoQuilt.

### 5. Install Counter Battens

Now it's time to install your perpendicular 25mm counter batten. Again, horizontally or vertically at 400 to 600mm intervals. We recommend these counter battens to be fixed to the initial battens. We also recommend creating a frame around any windows and around the perimeter.

### 6. Installing Plasterboard

Finally, once battens are fixed, appropriate plasterboard can be installed. Simply screw into your battens. This application would not require the use of a Foiled-back plasterboard as EcoQuilt45 works as a high performing Vapour Control Layer when fully sealed with Thermaseal Foil Joining Tape. Optional insulated plasterboards could be used for extra thermal benefits, if desired.



# How To Insulate Below Timber Floor Joists With EcoQuilt45

Installing EcoQuilt45 in a crawl space is a quick and simple way to insulate under your timber floor joists. Insulating EcoQuilt45 below joists will save considerable time compared to using PIR Insulation, due to virtually no cutting required! EcoQuilt45 in a floor has an R-value of up to 5.56m<sup>2</sup>K/W, which would equate to 155mm of installed PIR Insulation! Insulating EcoQuilt45 below 100mm joists would equate to 90mm of installed PIR Insulation. Insulating with EcoQuilt45 will also prevent any drafts, condensation and cold bridging, and Celotex. Please view the [How-To Video](#) for further information.

## Method Steps

### Step One

Staple the EcoQuilt45 to the underside of the first floor joist, ensuring a cavity of at least 25mm between the floorboards and insulation.

### Step Two

Pull EcoQuilt45 taught and staple to the next joist. Repeat this process throughout the whole floor area.

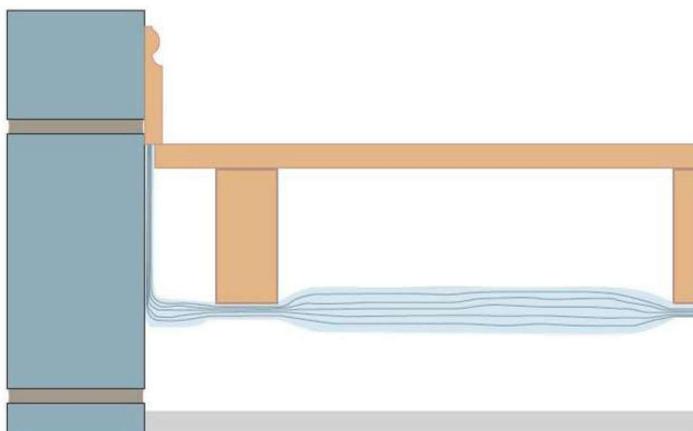
### Step Three

Take the EcoQuilt45 up the wall plate and secure in place with either a batten or nails.

Tape and Seal EcoQuilt45 around the perimeter using ThermaSeal Foil Tape. Leave the overlaps untaped.

### Tips

To make installation easier, fix a 25mm batten to the wall plate to staple the insulation in place, you can then tape and seal the insulation with ThermaSeal Foil Tape.



# How To Insulate Above Timber Floors With EcoQuilt45

Insulating over floor joists is an excellent way to improve thermal benefits, reduces drafts and prevent cold bridging. Recessing EcoQuilt45 within the joists is important as it creates an air cavity both sides of the multi-layered blanket, allowing the reflective foils to retain heat and radiant energy.

## Method Steps

### 1. Installing over existing joists

Start by removing the existing floorboards to expose all joists. We then recommend running the multifoil perpendicular to joists and cutting at each end, allowing enough material to recess the quilt into the joists.

### 2. Recessing Multifoil

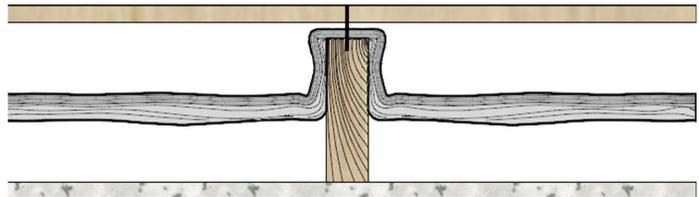
Next, recess EcoQuilt45 in-between the joists. Our insulation can be recessed by using staples to staple in place, or by using Saddle Clips, available on our website! The larger the cavity between EcoQuilt45 and the internal floorboards, the better the performance!

### 3. Taping and Sealing with ThermaSeal Foil Tape

Next tape and seal around the perimeter with ThermaSeal Foil Joining Tape. This will prevent drafts from rising through the flooring. We recommend overlapping each layer of Multifoil by 50mm and leaving the overlaps untaped, to allow the timbers to breathe.

### 4. Laying Floorboards

You can then proceed to install the floorboards back over the joists and insulation. This will then have created an air cavity on either side of the insulation.



# How To Insulate Your Conservatory Roof with EcoQuilt45

Conservatory Roofs are very commonly too hot in summer, and freezing cold in the winter. Our Multifoil Insulation materials are proven to create an ambient temperature all year round.

This guide will show you how to effectively insulate your conservatory for use all year round using our EcoQuilt45. Please view the [How-To Video](#) for further information.

## Method Steps

### 1. Installing ThermaFrost (Glass Only)

If the Conservatory has a glass roof, we recommend the use of our ThermaFrost Window Tint. This material will create a white opaque finish which will add privacy and also reduce sun glare by around 30%. To view full installation details of this product, please visit the data sheet on the product page. Please note this cannot be used on Polycarbonate Conservatory Roofs.

### 2. Installing Timber Battens

Install 25mm wooden battens onto the existing uPVC and Aluminium framework. We recommend the use of our FastFix 50mm Self Tapping Screws. We would recommend to check the depth of your roof rafters as the screws are only designed to go part way through the aluminium frame.

### 3. Stapling The Multifoil To Battens

Staple either EcoQuilt45 to the underside of the wooden battens. This will have then created an air cavity between the multifoil and Polycarbonate/ Glass Roof. We recommend stapling at 300mm intervals and using our Heavy Duty Staple Gun and 14mm Staples.

### 4. Taping and Sealing Insulation

Tape and seal all overlaps, cuttings and the perimeter with our ThermaSeal Foil Joining Tape (75mm x 50m roll). We recommend going overkill with the Foil Tape as this will allow the insulation to act as a high performing vapour control layer.

### 5. Installing Counter Battens

Install 25mm counter battens beneath the insulation, screwing into the first set of battens. Most commonly these battens are installed horizontally. We also recommend installing battens around the perimeter too which the internal boarding will be fixed to.

### 6. Install Internal Finish

To complete the installation you can now fit either a plasterboard or more commonly a uPVC Cladding. This can be screwed directly to the underside of the counter battens. If installing Plasterboard we recommend not to use a foil backed board and also to use a 9mm rather than 12.5mm board, as this will help keep the weight to a minimum.



# How To Insulate Garden Buildings

Garden Buildings and summerhouses are becoming increasingly popular to be used as offices, workshops, gyms, and areas to relax. Ensuring these usable spaces are well insulated are essential.

EcoQuilt45 provides high thermal benefits, and can be used in the roof, walls, and floor of an external building. Using EcoQuilt45 in these buildings will save considerable cost, space and installation time compared to Rigid PIR Insulation such as Kingspan and Celotex.

## Method Steps

### Step One

Staple EcoQuilt45 to the internal of the studwork at 300mm intervals. If there is currently no studwork showing, you can fix vertical 25mm battens to the walls at 400mm intervals.

### Step Two

Tape and seal the EcoQuilt45 using ThermaSeal Foil Tape around the perimeter, overlaps and around any cuttings made including electrical cables.

### Step Three

Install a further 25mm batten horizontally at 400m intervals. This will compress the EcoQuilt45 down to just 6mm!

### Step Four

Install a further 25mm batten horizontally at 400m intervals. This will compress the EcoQuilt45 down to just 6mm!

### Tips

To save on internal space, you can recess the insulation back into the studwork by 25mm, and then install your chosen finish.



# EcoQuilt45 Technical Information

-  UK Manufactured
-  Contains no floating or harmful fibres
-  2-1 Built in vapour control layer
-  Proven not to shrink or degrade over time
-  Thin, Flexible & Easy to Install
-  Reduces waste compared to PIR Insulation
-  Unique Kimble design to keep layers together
-  No protective clothing or mask require when installing
-  Made from 83% recycled materials
-  Roofs, Walls, Floors & Many more!

| EcoQuilt45 Product Details |                              |
|----------------------------|------------------------------|
| Layers                     | 11 Layers                    |
| Thickness                  | 45mm (7mm Compressed)        |
| Weight                     | 586 grams per m <sup>2</sup> |
| Insulation Properties      |                              |
| Core R-value               | 1.29m <sup>2</sup> K/W       |
| Roof R-value               | 2.19m <sup>2</sup> K/W       |
| Wall R-value               | 2.63m <sup>2</sup> K/W       |
| Floor R-value              | up to 5.56m <sup>2</sup> K/W |
| Outer Foil Emissivity      | 0.05                         |
| Water Vapour Resistance    | 1569MNs/g                    |
| Dimensions & Packaging     |                              |
| Roll Width                 | 1.5m                         |
| Roll Length                | 10m                          |
| Roll Coverage              | 15m <sup>2</sup>             |
| Roll Weight                | 8.8KG                        |
| Rolls Per Pallet           | 12 Rolls                     |

EcoQuilt45 has not been independently tested for use with Building Control and is purely for DIY purposes. If you require a product which is fully certified - please see our YBS SuperQuilt.



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