

How to Fix Over Rafter Insulation

How to Fix Warm Roof Insulation – Help, Advice & FAQ's

Take a look at [Video User Guide](#).

What is a warm roof?

A warm roof is a roof structure that is insulated at or over the pitched rafter level rather than at or over the horizontal ceiling joist level. Warm roofing usually forms part of an insulating envelope that encompasses the main structure of the building, laying just behind the buildings facades.

What are the benefits of insulating above the rafters?

As the performance requirements for thermally efficient buildings increase, the application of a single uninterrupted and sealed layer of over-rafter insulation helps to meet ever more stringent u-value targets. The effective design of warm roof insulation offers many advantages to the homeowner.

Low thermal conductivity results in lowers heating costs and emissions.

Loft spaces can be designed and utilised to accommodate additional living space without increase in plot size.

Services in the loft areas are protected from freezing.

No need for complicated ventilation.

The warm roof structure moves the dew-point further out of the building to alleviate condensation.

How many fixings should I be using to ensure all loads are safely carried?

The length and density of the warm roof fixing system depends on the location and exposure of the building and the building details itself. The system is required to take; compressive load from roof weight and snow potential; tensile load applied by wind suction; and sliding load, which is a function of the compressive load, angle of roof pitch and the depth of insulation.

Fortunately Twistfix is a co-sponsor of the HeliCalc Project. HeliCalc is an online software facility that calculates the quantity and size of the warm roof nails that are required to suit buildings having up to 150mm of over rafter insulation. HeliCalc uses a BRE approved calculation method that complies with current British Standards and applies factors of safety that conform to Euro-codes.

The FREE to use software is available at www.helicalc.co.uk.