

UNDER RAFTER INSTALLATION GUIDELINES (SEE FIGS 1-6)

TRISO-SUPER 10+ is suitable for use in an under rafter application providing the ideal option for loft conversions and saving space.

N.B. Ensure an air gap of 25mm minimum (or that provided by a 38mm batten) on either side of the insulation.

1. If required, install secondary insulation between rafters to achieve Part L compliance, aligning a 25mm air gap (minimum) to the underside (i.e. a sealed air gap needs to be between the TRISO-SUPER 10+ and the mineral wool / rigid board insulation).
2. ACTIS recommends fixing timber supports (as noggins) between the rafters, enabling the TRISO-SUPER 10+ joints to be stapled and taped securely. Continue to fix noggins every 1500mm as appropriate.
3. Lay TRISO-SUPER 10+ across the face of the rafters fixing in a continuous layer horizontally, starting at the ridge. Staple in place every 50mm using galvanised staples (14mm minimum, although 20mm staples are recommended) keeping as taut as possible (can be installed vertically if required).
4. Fix next layer of insulation to overlap previous layer by 50-100mm. Staple to noggin and seal with 100mm ACTIS ISODHESIF tape.
5. Ensure all perimeter edges of the ACTIS insulation are folded under by 50mm, stapled and battened to stop air ingress.
6. Any exposed edges must be sealed with reflective tape to prevent ingress of moisture to the inner layers of the insulation.
7. Visually inspect installed insulation to ensure the finish is as air tight as possible.

8. Prepare for plasterboard by fixing horizontal or vertical battens (50 x 38mm) using nails, through the ACTIS insulation to the rafter.
9. Fixing standard plasterboard is recommended.

If using **insulated plasterboard** as the secondary insulation follow steps 2 – 8 as above, then attach insulated plasterboard.

Ventilation

Felled Roof

Ensure an air gap of 50mm minimum between any insulation and the felt, with ventilation from eaves to ridge according the British Standards.

Vapour Permeable Underlay

(Breather Membrane)

The membrane should have a vapour resistance of less than 0.25 MNs/g to eliminate the need for ventilation.



SAFETY PRECAUTIONS AND RECOMENDATIONS

How to get the most from your ACTIS product

IMPORTANT: in addition to the specific recommendations given by ACTIS below, your ACTIS product should be installed and used in compliance with (1) good building practice; (2) the most recent editions of any applicable regulations or relevant guidance and (3) any British or European Standards relating to the installation and use of insulation products, particularly in relation to safety precautions.

Fire precautions

Never expose ACTIS insulation to a direct heat source, sparks or naked flame.

Keep blow torches well away from ACTIS insulation, even when using a flame guard or other protective device, and make sure that hot debris and sparks do not make contact with the insulation.

Fireproof finishes and compartment walls

As recommended by current regulatory guidance, do not leave insulation exposed in habitable rooms. We recommended that ACTIS insulation is always covered with a fire proof finish such as plasterboard (see, for example, the fire safety provisions contained in Approved Document B, which provides practical guidance on the fire safety requirements of the Building Regulations 2000 (as amended) in England and Wales; or refer to the relevant provisions in Scotland and Northern Ireland, as amended from time to time). To ensure that compartment walls achieve the requisite levels of fire resistance, the insulation should not be carried over junctions with such walls (again, please refer to the fire safety provisions contained in Approved Document B noted above, or to any applicable provisions in Scotland and Northern Ireland, as amended from time to time). TRISO-SUPER 10+ is not fire rated and has Euroclass classification F.

Chimneys, flues, heat exchangers and other sources of heat

Never use ACTIS insulation to insulate a chimney flue, heat

exchanger or any other heat source above 80°C. Use a Euroclass A1 non-combustible insulation in compliance with British or European Standards. ACTIS advise leaving a minimum gap of 200mm between the insulation and chimneys, flues, heat exchangers and all other sources of heat above 80°C.

PLEASE SEEK ADVICE FROM ACTIS BY CALLING THE HELPLINE ON 01249 462 888 AND CHECK WITH YOUR LOCAL BUILDING CONTROL OFFICER BEFORE INSTALLING ACTIS INSULATION NEAR ANY SOURCE OF HEAT ABOVE 80°C.

Down-lighters and recess lighting

The use of down-lighters or recess lighting in conjunction with ACTIS insulation is not recommended. Unless special precautions are taken, this poses an elevated fire risk.

However, if the use of such recess lighting in conjunction with ACTIS insulation is desired, encasing the down-lighter appropriately with non-combustible material may provide adequate fire protection, but in all cases advice should be sought from the relevant Building Control officer who will give guidance on a case by case basis.

Contact between materials and compatibility between products

Avoid all contact between ACTIS insulation and lead, zinc, copper and its alloys as well as caustic products.

LOFT CONVERSIONS

How to install ACTIS TRISO-SUPER 10+ in a pitched roof ?

TIME SAVING SOLUTION – 3 IN 1 PRODUCT: INSULATION AIR TIGHTNESS VAPOUR CONTROL LAYER

IF HEADROOM IS A PROBLEM – TRISO-SUPER 10+ IS THE ANSWER

QUICK & EASY TO INSTALL

EASY TO CARRY, TRANSPORT, STORE AND INSTALL

VERY LITTLE WASTE – MINIMUM CUTTING REQUIRED

ACTIS

TOMORROW'S INSULATION TODAY

This document is primarily concerned with loft conversions where the work is to be undertaken under an existing pitched roof. It is assumed that the insulation is to be installed from under the rafters.

Most roofs being converted will have an existing non-breathable felt membrane (roofing felt) under the tiles or slates, therefore it will be necessary to incorporate ventilation. A ventilated air gap of 50mm minimum between the insulation and the underside of the felt is required which enables through flow of air from eaves to ridge.

If however a breather membrane is fitted over the rafters instead of roofing felt then the need for ventilation is eliminated, providing the membrane has a vapour resistance of less than 0.25 MNs/g.

APPROVED DOCUMENT L1B: CONSERVATION OF FUEL AND POWER

The current recommendation within Part L1B suggests that "Reasonable provision shall be made for the conservation of fuel by limiting heat gains and losses – through thermal elements and other parts of the building fabric". TRISO SUPER 10+ can usually achieve a U Value as low as 0.18W/m²K when used in conjunction with any of the following, providing rafters are no more than 50mm wide and the centers are not less than 400mm:

- 30mm PIR/PU foamboard insulation ($\lambda=0.023$)
- 50mm mineral wool insulation ($\lambda=0.032$)
- 37.5mm insulated plasterboard ($\lambda=0.030$)

If the rafter centers are less than 400mm or the rafter width is more than 50mm, it will be necessary to increase the thickness of the additional insulation. TRISO-SUPER 10+ is a reflective multifoil insulation. As such in compliance with ACTIS' recommended installation procedures, it is necessary to ensure a minimum air gap of 25mm is provided between adjacent additional insulation and plasterboard. It is recommended that the opinion of Building Control is obtained prior to installation.

CONDENSATION RISK

TRISO-SUPER 10+ has a very high vapour resistance (above 500 MN.s/g). When it is installed under rafters in conjunction with additional insulation between rafters, a separate vapour control layer is not necessary and therefore standard plasterboard may be used. It will be necessary to remove any existing insulation fitted in the flooring of the loft.

DIAGRAMS

The following diagrams illustrate the different options recommended by ACTIS in order to attain a U-value of 0.18 W/m²K and obtain a sustainable improvement as required.

Figs 1 to 3: illustrate under rafter applications where there is felt already installed under the tiles or slates.

Figs 4 to 6: show the under rafter applications if a breather membrane is installed.

Please contact the ACTIS Technical Department for further details.

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APPLICATIONS WITH EXISTING ROOFING FELT (non-breathable membrane)

Fig 1

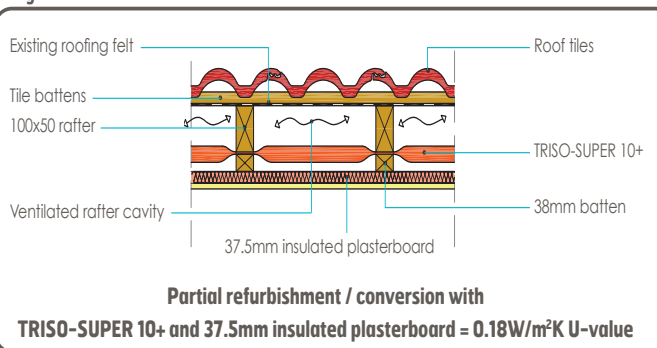


Fig 2

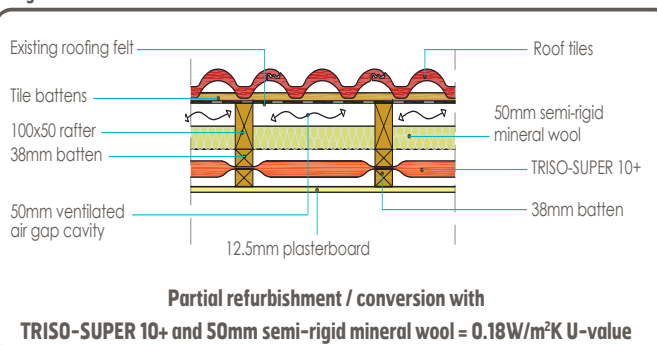
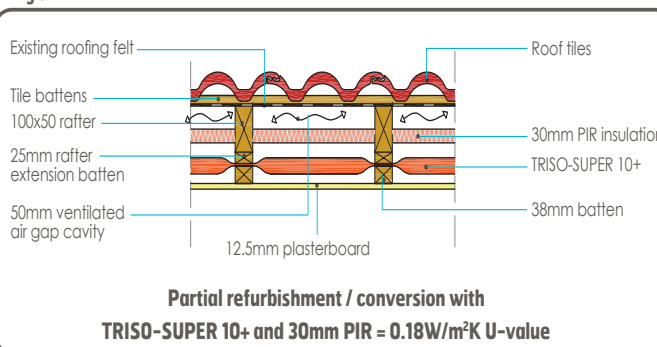


Fig 3



APPLICATIONS WITH BREATHER MEMBRANE

Fig 4

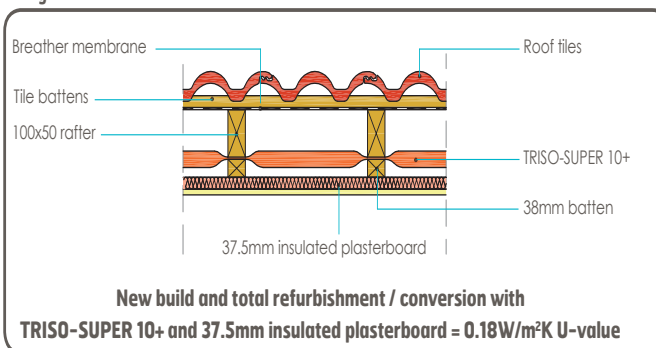


Fig 5

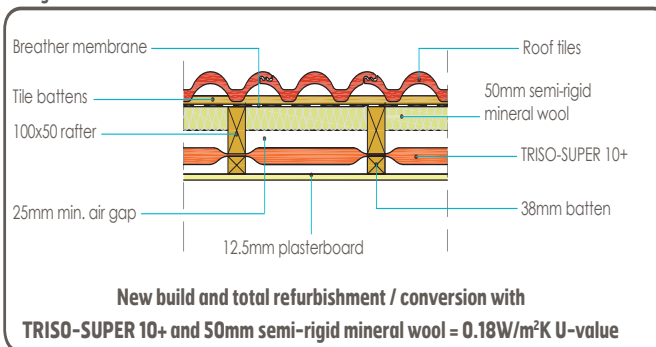


Fig 6

