

## TRISO-SUPER 10+

### THIN MULTIFOIL INSULATION

#### INSTALLATION FAQs

##### How much additional insulation do I need to reach Part L 2010 compliance in a pitched roof?

Please refer to relevant diagrams in specific Installation Guidelines:

- UNDER RAFTER APPLICATIONS:  
see REFURBISHMENT Figs 1 - 3, NEW BUILD Figs 4 - 6
- OVER RAFTER APPLICATIONS:  
see NEW BUILD & TOTAL REFURBISHMENT Figs 7 - 9

##### How are two types of insulation in a pitched roof installed?

When using ACTIS insulation in conjunction with other products, such as a tiling underlay or breather membrane (as recommended by current regulatory guidance) or with supplementary insulation, precautions must be taken to avoid vapour or condensation issues. Adequate ventilation will help, but ACTIS also recommends that the product with the highest vapour resistance be placed on the inside (warm side) of the other product (with a lesser vapour resistance). ACTIS cannot make any warranty, express or implied, as to the performance or safety of other products used in conjunction with its own products. If there is a possibility of a condensation risk with a particular combination of insulation products, it is recommended that a VCL with a minimum vapour resistance of 900 MNs/g such as ACTIS HCONTROL REFLEX+ is incorporated immediately behind the plasterboard.

##### What size battens should be used when installing TRISO-SUPER 10+?

38mm battens are recommended. The battens' primary purpose is to provide an air gap between the insulation and any other element. TRISO-SUPER 10+ principally provides its thermal performance by reducing thermal transfer through radiation, and the air gap is required to force thermal transfer to take place via radiation. If an element such as plasterboard is in contact with the TRISO-SUPER 10+, heat transfer can occur through conduction, which reduces the thermal performance of the system and should therefore be avoided.

##### What type of fixings should I use?

Screwing directly through TRISO-SUPER 10+ is not recommended as most screw types will catch on the separating wadding. Nail battens at 150mm centres with maximum 65mm ring shank nails. Plasterboard should be fitted with maximum 30mm Gypsum or Driwall screws at 300mm centres.

##### What tape should be used and how much is required?

All testing of TRISO-SUPER 10+ has been carried out using ACTIS ISODHESIF tape, and therefore this tape is recommended by ACTIS. There are 25 linear metres on a single roll of tape which

is 100mm wide. Generally, one roll of tape should be sufficient for every 2 rolls of TRISO-SUPER 10+. Duct tape or electrical tape should not be used to fix ACTIS insulation systems.

##### What happens at collars where the compliance figure changes?

Building Regulations generally require pitched roof applications to attain a u-value of 0.18 W/m<sup>2</sup>K. The horizontal collar section under the ridge is required to attain a u-value of 0.16. To comply with this requirement for an under rafter installation of TRISO-SUPER 10+ it is recommended to add between 75 and 100mm of mineral wool above the collar ties.

##### How can down lighters be installed in insulated ceilings?

ACTIS does not generally encourage the use of recess lighting in any insulated ceiling. Doing this can cause problems due to the conflict between fire performance, sound and air tightness/thermal performance requirements. It may be possible to combine recess lighting with TRISO-SUPER 10+ insulation using specialist enclosures or other solutions. Holes should not be cut in the insulation to allow for lighting, as this reduces the thermal integrity of the system. If TRISO-SUPER 10+ has already been fitted under the rafters together with the plasterboard, it is not practical to successfully install concealed lighting retrospectively.

##### What is the Global Warming Potential (GWP) of TRISO-SUPER 10+?

As far as Actis is aware there is no specific documentation for GWP. In the context of BREEAM and CfSH GWP relates to the global warming potential of the blowing agents used in insulants. We can confirm that the blowing agent used for the manufacture of the foam wadding has a GWP of < 5. The blowing agent is also replaced by air shortly after the manufacture of the wadding; therefore there is no GWP of the blowing agent during installation, use or disposal.

##### Is TRISO-SUPER 10+ suitable for insulating a flat roof?

Yes, providing the following additional information is taken into account, together with our Essential Rules of Installation:

- A cross-ventilated air gap of 50mm (minimum) above the insulation is essential.
- If TRISO-SUPER 10+ is to be fitted over joists, then a vapour control layer is advisable at plasterboard level, especially if supplementary insulation is being installed between joists.
- It is recommended that the opinion of Building Control is obtained prior to specification or installation.

Please contact the ACTIS Technical Department for further details.