

TRI-ISO SUPER 10



Technical Data - What to order - Frequently Asked Questions



ACTIS TRI-ISO SUPER 10 is made from:

- 19 Layers of heat resisting materials comprising:
- 2 External reflective films with reinforced mesh
- 3 layers of soft, flexible wadding
- 8 layers of closed cell foam
- 6 internal layers of reflective film

ACTIS TRI-ISO SUPER 10 for use in roofs and attics is a new, improved, version of the popular TRI-ISO SUPER 9 insulation. Super 10 gives increased thermal efficiency and is still only 30mm thick!

This product has been tested under real conditions by TRADA Technology Limited and certified by BM TRADA Certification Limited - (Certificate n°0102, issued on April 3, 2006) as being the equivalent to 210 mm of mineral wool. However, we strongly recommend that users check with their local Building Control regarding Part L Building Regulations issued on April 6, 2006, before purchasing this product.

Physical Characteristics of ACTIS TRI-ISO SUPER 10

Thermal efficiency quoted below was measured under real conditions by TRADA Technology Ltd. and equivalent to 210mm of mineral wool as certified by BM TRADA Certification Ltd



TRI-ISO SUPER 10
Installed prior to fitting roof tiles



TRI-ISO SUPER 10
Under rafter application

ACTIS TRI-ISO SUPER 10 Test / Data	Value	Reference Standard
Certified u-Value	0.19 W/m ² .K	BM TRADA Certificate N°0102
Uncompressed thickness	30mm	
Weight per square metre	600g/m ²	
Tested compressed thickness	20mm	NF G07 - 150
Acoustic reduction	Rw = 61dB	
Break strength: Warp Weft	> 500 N > 400 N	BS EN ISO 13934-1
Tear strength: Warp Weft	> 50 N > 60 N	BS EN ISO 13937-2
Temperature minimum Temperature maximum	-40°C 70°C	
Roll size: 1.6m x 12.5m 20m ² Nominal coverage area 19.4m ² (Allowing for overlaps)	Weight 14kg	
Adhesive Foil Tape 75mm x 45m roll		

What to order – Calculating your requirement for over or under rafter applications

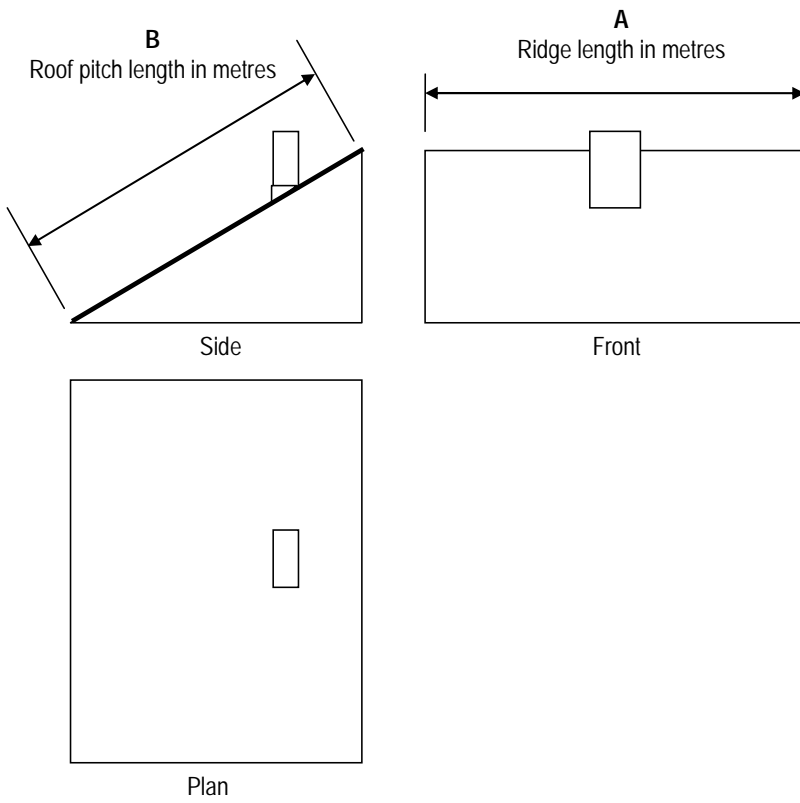
The illustrations on the following pages show outside roof dimensions. No matter if you are ordering material for over or under rafter applications the calculation method provides for the nominal quantity required and allows for sufficient material for overlaps.

It is recommended that measurements are taken in metres. You may forward your roof plan for checking by nbs.

Forward to: nationwide build shop limited, PO Box 200, Horley, Surrey. RH6 7RU or sales@nbs-home.co.uk

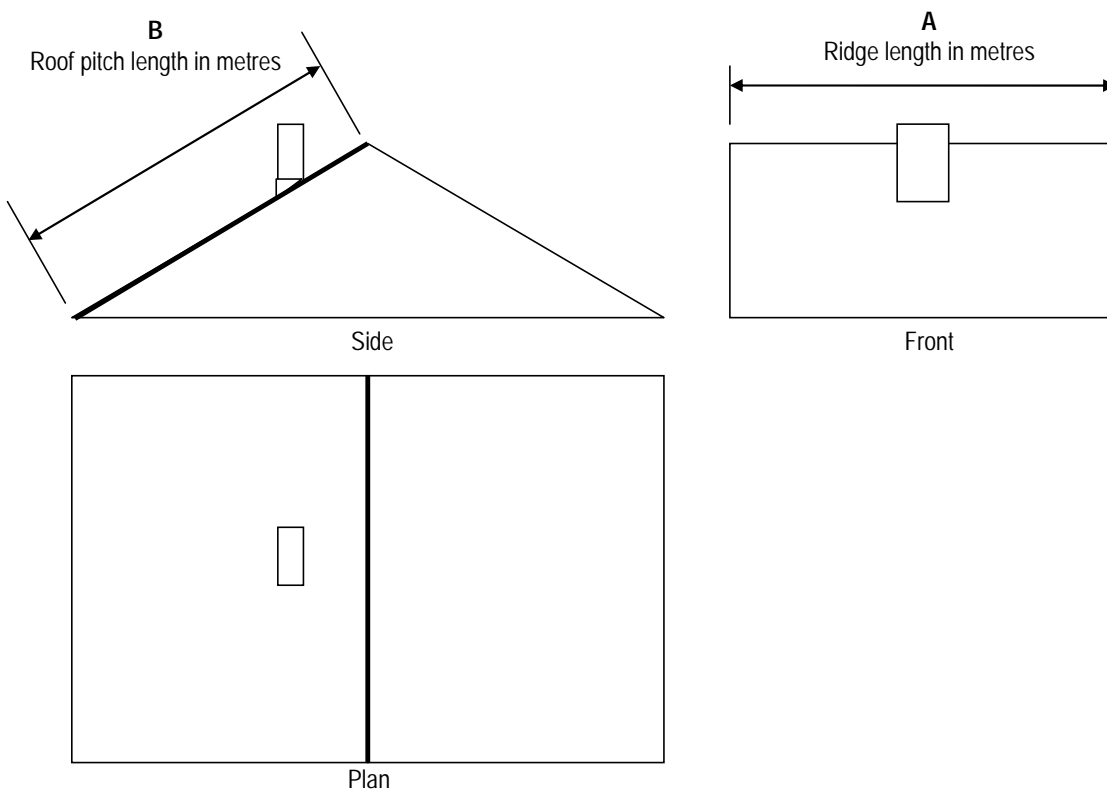
Single pitched roof

1. Measure the ridge length **A** in metres.
2. Measure the roof pitch length **B** in metres.
3. Multiply **A** with **B** to give the nominal total area of the single pitched roof area.



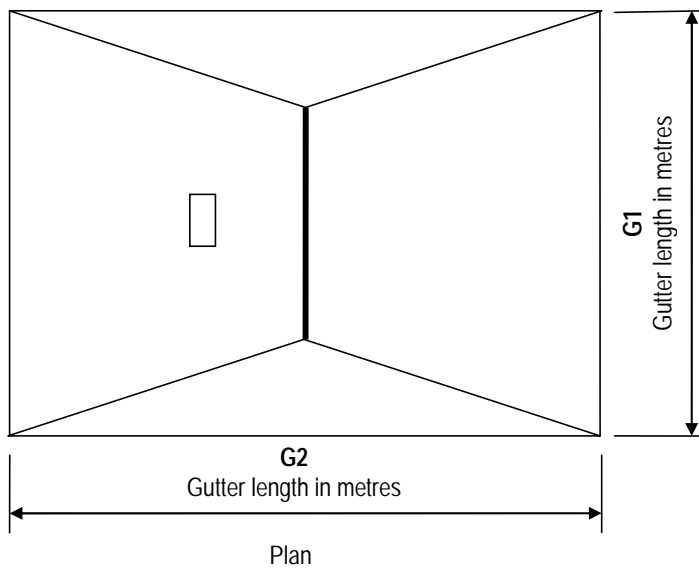
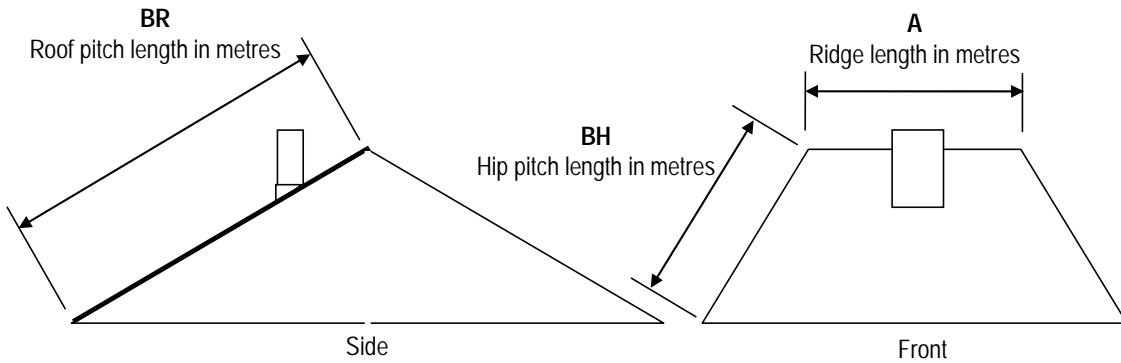
Double pitched roof – Equal pitched areas

1. Measure the ridge length **A**.
2. Measure the roof pitch length **B**.
3. Multiply **A** with **B** to give the area of one side of the roof. Multiply by 2 to give the nominal total area of the roof.



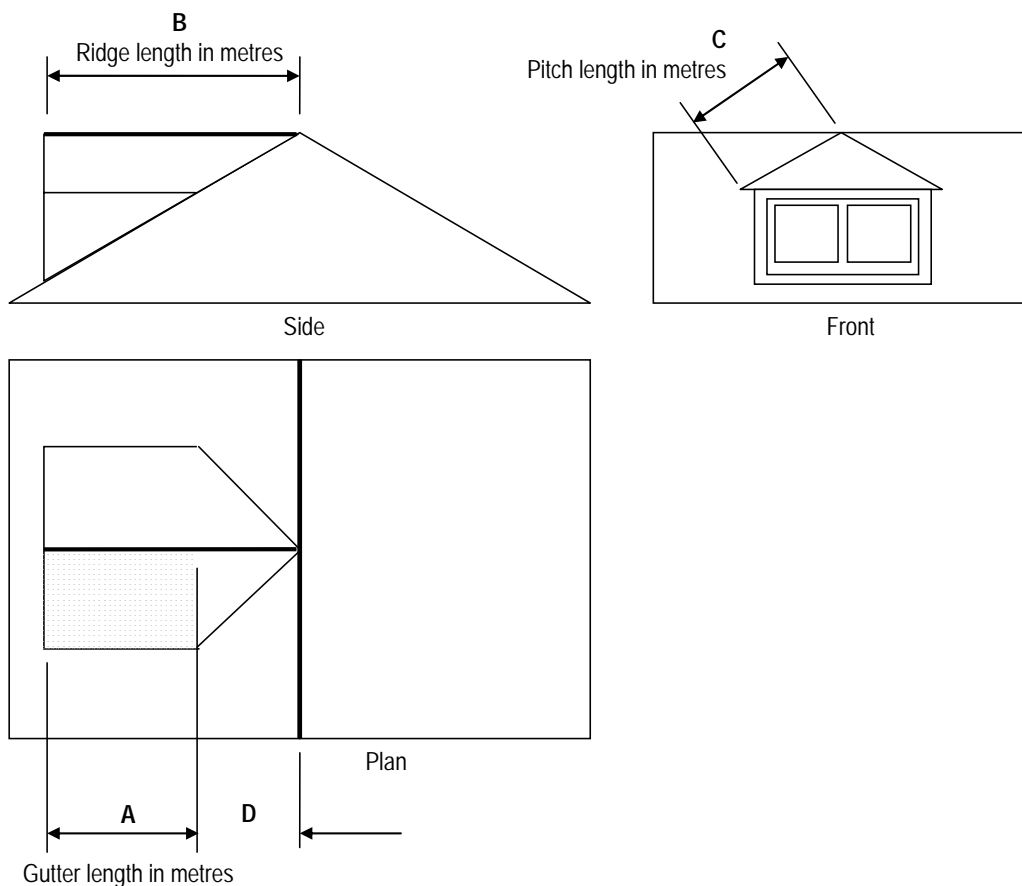
Double pitched hipped roof – Equal pitched areas

1. For the main roof area, measure the ridge length **A**.
2. Measure the Gutter length **G1**.
3. Measure the roof pitch length **BRs**.
4. Add the results of **A** to **G1** then divide by 2 then multiply by **BR**. The calculation gives one side of the roof. Multiply by 2 for other side of the main roof area.
5. For the hipped roof area, measure the hipped pitch length **BH** and multiply this by the gutter length **G2**. Divide the result by 2 then multiply this sub-total by 2 to allow for the opposite side of the hipped roof area.
6. Now add the main roof and hipped roof areas together to give the nominal total area of the roof.



Pitched dormer roof on a pitched main roof

1. Measure the gutter length **A** and multiply this with the pitch length **C** to ascertain the (Grey) area of this part of the roof.
2. Measure the ridge length **B** and deduct gutter length **A** to give dimension **D**.
3. Take HALF of the dimension at **C** and multiply this with dimension **D**.
4. Add the results of the two calculations together to give the area of one half of the dormer roof.
5. Multiply by two to give the nominal total area of the dormer roof.



Recommended quantities to order

ACTIS TRI-ISO SUPER 10

When ordering ACTIS TRI-ISO 10 always **ROUND-UP** to the nearest roll size - 1.6m wide x 12.5m roll (20 m² per roll)

Self adhesive acrylic tape for ACTIS TRI-ISI SUPER 10 75mm x 45 metre roll.

Add the **TOTAL LENGTH** of TRI-ISO SUPER 10 insulation rolls purchased. You need to purchase sufficient tape to match this total length. Adhesive tape comes in rolls containing 45 metres. Always **ROUND-UP** to the nearest roll.

Please note, duct tape or electrical tape should **NOT** be used to fix the TRISO-SUPER 10 insulation system.

If you require further guidance please email sales@nbs-home.co.uk with your query.

Frequently Asked Questions

Can ACTIS TRISO-SUPER 10 be used on walls?

TRISO-SUPER 10 has been tested and certified for use on pitched roofs. TRADA certificate 0102 also allows for the use of TRISO-SUPER 10 on walls such as gable walls, dormer cheeks and other verticals within the roof space. These walls are to be less than 40% of the overall area to be insulated. TRISO-SUPER 10 has been installed successfully on walls throughout the UK, specifically in the refurbishment of homes where space is limited. However, local building control should always be contacted before installation to ensure approval.

Can ACTIS TRISO-SUPER 10 be used within flat roofs?

ACTIS has not tested TRISO-SUPER 10 in a flat roof application, so is not qualified to offer a solution based on testing and certification. TRISO-SUPER 10 is primarily designed, tested and certified for pitched roof applications; however it can be used for insulation in a flat roof subject to the following: TRISO-SUPER 10 does not have certification for use in flat roofs, so you should always refer to your local Building Control for project approval before installation. TRISO-SUPER 10 is only suitable for simple flat roofs, used in domestic scale architecture, for areas such as dormer roofs and extensions. Ventilation of the void below the impervious waterproof surface finish is essential. If good cross flow ventilation cannot be provided then TRISO-SUPER 10 should not be used.

How can down lighters be installed in insulated ceilings?

ACTIS does not generally encourage the use of recess lighting in any insulated ceiling. Using down lighters in insulated ceilings can cause problems due to the conflict between fire performance 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. Please contact the ACTIS technical department for further details.

Can you lay TRISO-SUPER 10 horizontally in a loft space, over existing insulation, to upgrade the thermal performance?

ACTIS TRISO-SUPER 10 has no certification for installation in this application. ACTIS would suggest other insulation options within this application, due to possible condensation risk when using two differing insulation types. Please contact the ACTIS technical department for further details.

What type of fixings should I use?

It is recommended that battens are nailed at 150mm centres using maximum 45mm nails, preferably ring shank. Plasterboard should be fixed with maximum 30mm Gypsum or Driwall screws at 300mm centres. Screwing directly through TRISO-SUPER 10 is not recommended as many screws will catch on the separating wadding.

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

TRISO-SUPER 10 should be fixed to the rafters with a 25mm batten minimum, however 38mm is recommended in certain applications such as between the TRISO-SUPER 10 and a boarded roof. 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.

Using two types of insulation in a pitched roof?

There is sufficient third party information to suggest that combinations of differing insulation types including multi-foils can perform to expected levels. TRISO-SUPER 10 has been used successfully on many projects in conjunction with third party insulation. We are confident, for example, of the performance in terms of vapour when low density wool type insulation is used on the outside of the multi-foil insulation. However, ACTIS cannot offer full assurances of the performance of such systems particularly in terms of condensation risk for the life of the roof as this has not been tested or certified. When considering using a third party insulation with the TRISO-SUPER 10 system, either because they want to offer an improved thermal performance or at the request of building control, then ACTIS recommends that the insulation with the higher vapour resistivity be placed on the inside, and would always suggest a vapour control layer is installed to the back of the plasterboard.

What tape should be used and how much is required?

All testing of TRISO-SUPER 10 has been carried out using adhesive tape, and therefore this tape is recommended by ACTIS. There are 50 linear metres on a single roll of tape and roughly one roll of tape should be used with each 20m² roll of TRISO-SUPER 10.

What precautions should be taken in terms of fire performance?

ACTIS insulation is designed to be installed behind a fire safe surface such as plasterboard. The insulation should not be left exposed in a habitable space as this would not comply with Approved Document B of the Building Regulations. Care should be taken during the installation stage not to expose TRISO-SUPER 10 to a heat source such as a blowtorch.

Can TRISO-SUPER 10 affect my TV and mobile phone reception?

Due to the reflective nature of the TRISO-SUPER 10 insulation, TV or mobile phone signals could possibly be affected. This would only happen where there is a weak signal and the aerial is completely surrounded by the insulation, such as in a loft space. ACTIS recommends the aerial is outside the insulated space if the signal is weak.

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