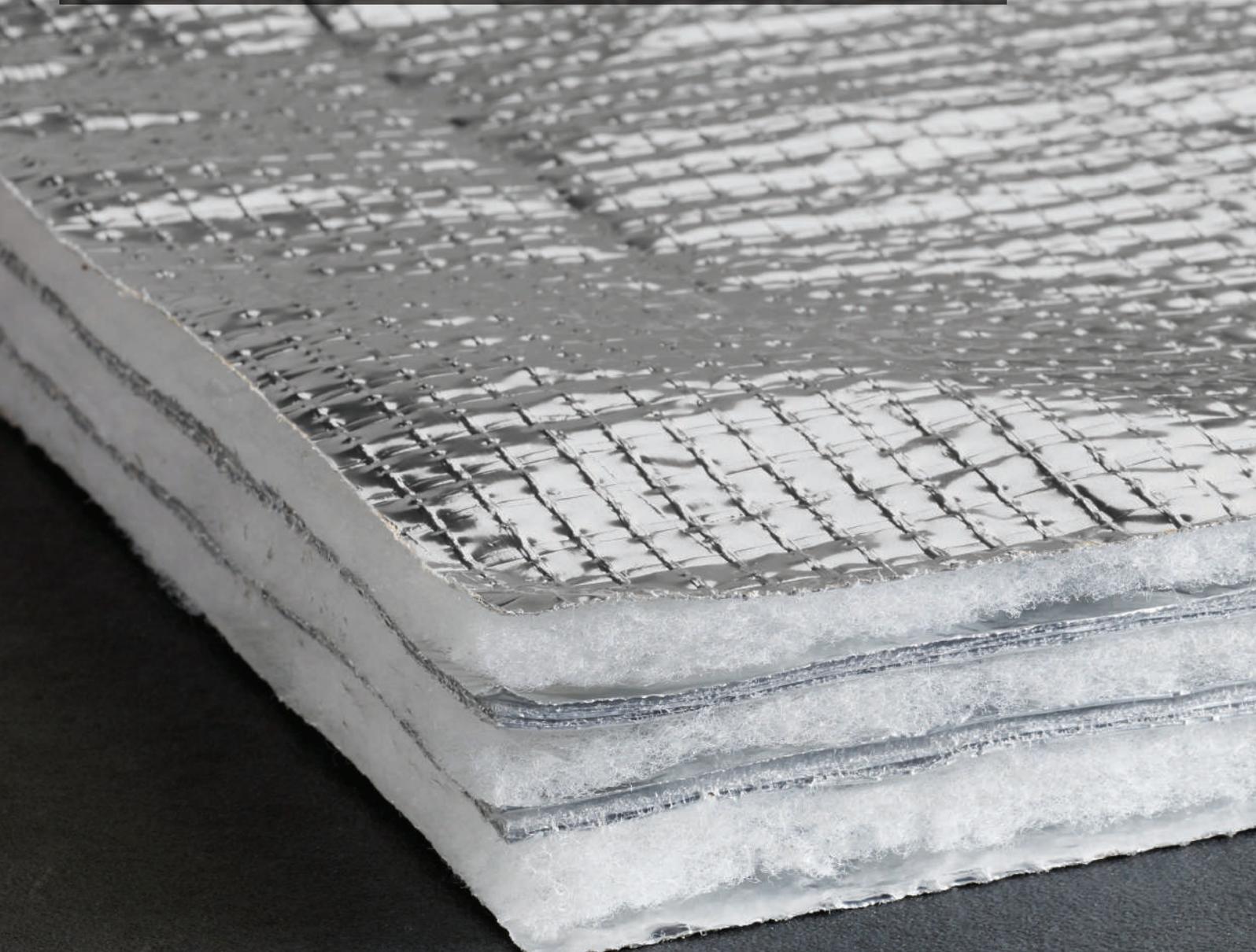


# ACTIS TRISO-SUPER 10+



MULTIFOIL INSULATION



**ACTIS**  
TOMORROW'S INSULATION TODAY

## MAXIMUM PERFORMANCE IN 35MM THICKNESS

For 35 years the Actis vision has been to reduce buildings' energy consumption with effective insulation solutions which, once installed, achieve the results they claim. For this reason Actis has tested its multifoil insulation products in real conditions of use to measure effectively their impact on buildings' energy consumption.

### AN ACCREDITED PRODUCT CERTIFICATION



Since 1997 this vision has been shared by TRADA Technology Ltd, the laboratory which has developed a reliable "in situ" test protocol. In recognition of the time and energy spent, in July 2011 the BM TRADA Certification received UKAS accreditation for its Building Products scheme, including assessment of its BIP-001 test protocol used to evaluate the performance of reflective multifoil insulation products in real life conditions.

This UKAS accreditation should give further confidence to Local Authority Building Control Bodies to accept independent certification for insulation products.

**TRISO-SUPER 10+ IS THE FIRST PRODUCT CERTIFIED BY BM TRADA CERTIFICATION IN ACCORDANCE WITH THE UKAS ACCREDITED BIP-001 TEST PROTOCOL.**

### A CERTIFIED HIGH THERMAL PERFORMANCE

TRISO-SUPER 10+ has been tested in comparison with mineral wool for a total of 3 months at sites in the UK and France. Energy consumption data was collected from two identical, full scale roof structures at each site, one fitted with TRISO-SUPER 10+, the other insulated with traditional mineral wool. The roof structures were tested concurrently and under a range of identical winter weather conditions. The energy consumption was then calculated for a range of UK winter weather conditions to ensure that the results achieved are valid throughout the UK.

TRISO SUPER 10+ has been tested for use in roof construction and has an in-situ thermal insulation performance equivalent to 210mm of mineral wool\*.

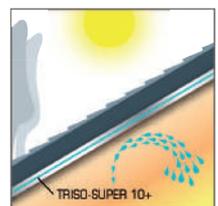
**A PROVEN PERFORMANCE DEVELOPED FROM 30 YEARS OF RESEARCH.**



### TESTED AND CERTIFIED AIRTIGHTNESS AND VAPOUR RESISTANCE

TRISO-SUPER 10+ is airtight, watertight and has a high vapour resistance. It acts as a barrier against cold air infiltration and prevents warm air escaping. A tested water vapour resistance of over:  $Z > 500\text{MN/g}$ .

**A TIME SAVING SOLUTION: INSULATION, AIRTIGHTNESS AND VAPOUR CONTROL.**



### USER FRIENDLY

- Internal air quality: A+ rating according to ISO 16000.
- No personal protection equipment required during installation.
- No earthing required.
- Very little wastage – minimum cutting required.
- Easy to carry, transport and store.
- Dimensional stability: durable, does not create thermal bridging by sagging, shrinking or deforming.
- Surface finish which guarantees emissivity for the life of the building.
- Clean and free from irritant fibres.
- Flexible, can be cut with scissors or an Actis cutter.



Information about VOC emission levels in indoor air, showing the risk of toxicity if inhaled, on a scale from A+ (very low emissions) to C (high emissions).

# TECHNICAL CHARACTERISTICS

## THE PRODUCT

Data	Value	Standard
Thickness	35 +/-3mm	EN 823
Thermal performance	Equivalent to 210mm of mineral wool ( $\lambda_D = 0.04 \text{ W/mK}$ )*	BIP-001
Emissivity	0.05	EN 16012
Air permeability	Airtight	EN 12114
Water vapour resistance	Z > 500 MNs/g	EN 1931
Water resistance	W1	EN 1928 method A EN 13859-1
Surface weight	$\geq 738 \text{ g/m}^2$	
Fire test reaction	Euroclass F	EN 13501-1
<b>Tensile strength</b>		
Longitudinal	$\geq 600 \text{ N/50mm}$	EN 12311-1
Transversal	$\geq 400 \text{ N/50mm}$	
<b>Nail tear resistance</b>		
Longitudinal	$\geq 400 \text{ N}$	EN 12310-1
Transversal	$\geq 450 \text{ N}$	

\* The mineral wool used to establish equivalence conforms to EN 13162, has a declared thermal conductivity of 0.04W/mK and 210mm of this mineral wool has a declared R value of 5.25m<sup>2</sup>K/W. The thermal performance equivalence is between the two tested roof structures, and includes all the associated heat losses, such as thermal properties of the materials, air leakage and thermal bridging, the structures being designed with realistic and identical airtightness and fractional timber surface area to ensure that the results of the test are representative of commonly used roof structures. For details, please refer to certificate on [www.insulation-actis.com](http://www.insulation-actis.com)

## ADDITIONAL INFORMATION

Data	Value	Standard
Width	1.6m	EN 1848-2
Length	10m	
Area per roll (m <sup>2</sup> )	16m <sup>2</sup>	
Weight per roll	Approx. 12 Kg	

## ACCESSORIES



Actis Tape



Cutter

## ESSENTIAL RULES OF INSTALLATION

1. Ensure an air gap of 25mm minimum (or that provided by a 38mm batten) on either side of the insulation.
2. **Ventilation**  
**Felted Roof:** Ensure an air gap of 25mm minimum between the insulation and the felt, with ventilation from eaves to ridge according to 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.
3. Pull the insulation taut and staple every 50mm to the rafters or timber support using galvanised staples (14mm minimum, although 20mm staples are recommended).
4. Overlap the insulation 50-100mm at each joint and staple every 50mm onto the rafter or timber support batten.
5. Cover all joints with Actis tape to give an airtight finish.
6. Fold all finishing edges under by 50mm minimum, staple every 50mm, and secure with a final batten.
7. All exposed edges must be sealed with reflective tape to prevent ingress of moisture to the inner layers of the insulation.

## GENERAL GUIDANCE ON INSTALLING TRISO-SUPER 10+ INSULATION

Insulation should take into account all elements of the building envelope which are susceptible to thermal losses, such as doors, roofs, walls and floors. Adequate ventilation should be provided where necessary, in compliance with good building practice and with the most recent editions of the relevant regulatory guidance and British and European Standards available. Actis cannot compensate for heat losses due to defective or poorly insulated joinery, or thermal bridging due to poor construction.

**IMPORTANT:** For guidance on how to install Actis insulation products so as to maximise thermal performance, please refer to the detailed 'Installation Guidelines' brochure available for the relevant product, which should be read in conjunction with this leaflet. Actis makes no warranty, express or implied, as to the performance of its products if the relevant installation guidelines are not followed.

### • **Television and mobile signals**

It is advisable to have an external television aerial when using Actis products. Mobile signals may be affected by Actis insulation in low signal areas.

### • **Protecting your Actis product from the elements before and after installation**

Triso-Super 10+ should be stored in its packaging under cover to protect it from the elements (such as rain or snow). During installation, Actis insulation should be protected from any prolonged exposure to rain or snow. Once installed, Actis products should not be left exposed to weathering for more than 3 days.

### • **Installing other products with your Actis product**

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. This can be avoided by ensuring adequate ventilation, but Actis also recommends that the product with the highest vapour resistance be placed on the inside (the warm side). Actis cannot make any warranty, express or implied, as to the performance or safety of other products used in conjunction with its own products.

### • **Building Control approval**

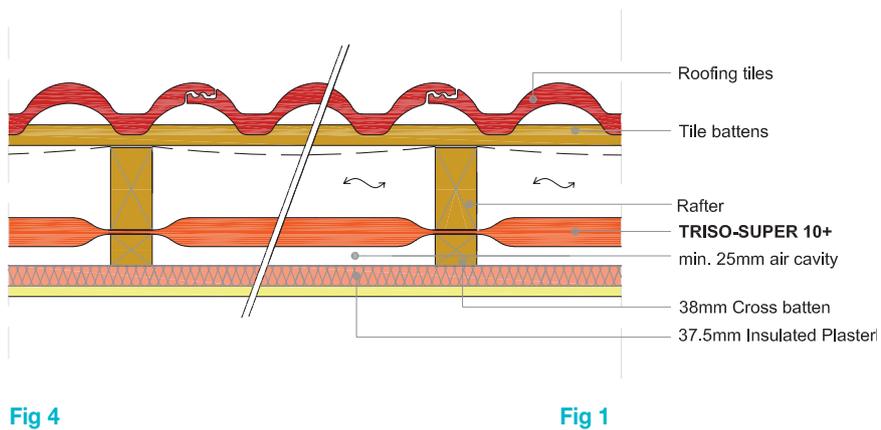
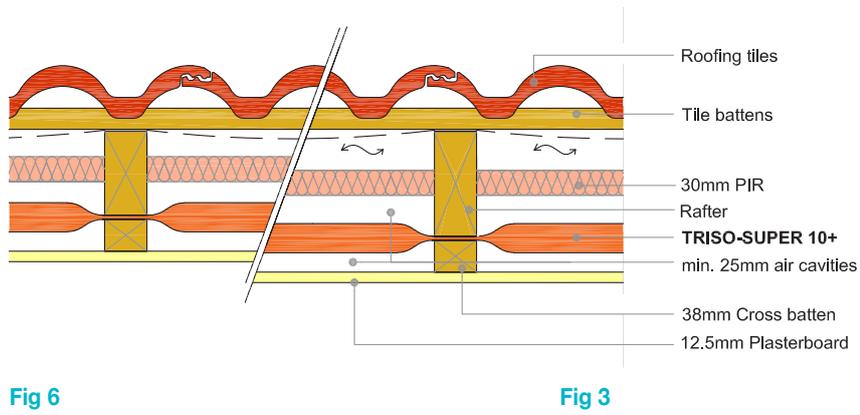
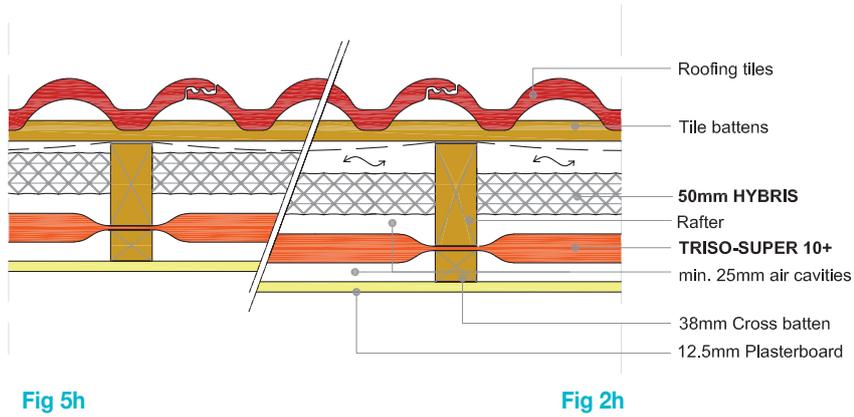
Local Authority Building Control Bodies have the discretion to accept independent certification for insulation products. We strongly advise that you seek confirmation of this approval from your local Building Control Body before installing the TRISO-SUPER 10+.



## PITCHED ROOF SOLUTIONS

TRISO-SUPER 10+ is recommended for refurbishment applications. The product used in an under rafter application provides the ideal option for loft conversions and saving space. Popular solutions are shown below:

### Application with breather membrane // Application with roofing felt



## ROOF ASSOCIATED WALLS

TRISO-SUPER 10+ is also suitable for walls which are part of the roof construction. Popular solutions are shown below:

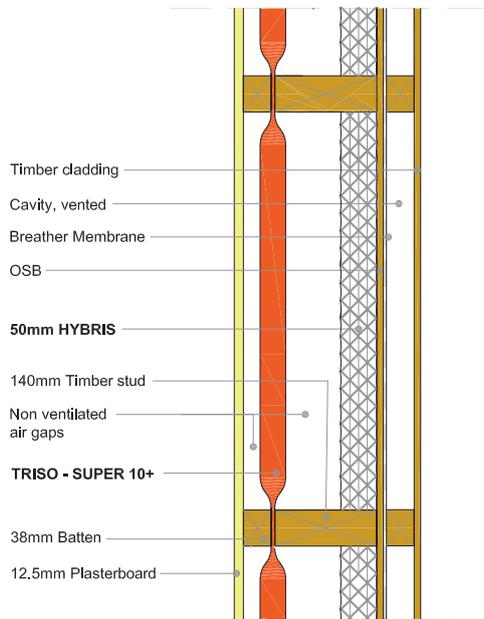


Fig 16

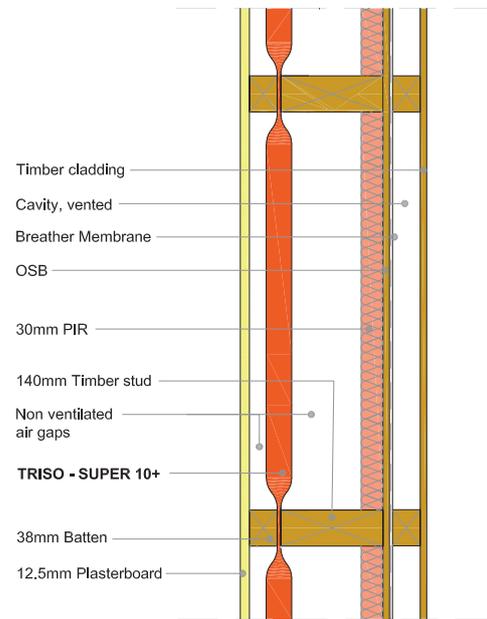


Fig 17

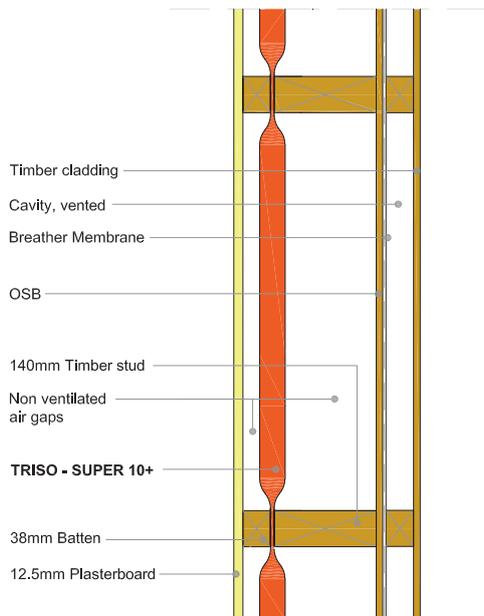


Fig 18

## 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 a 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 recommend that Actis insulation is **always** covered with a fireproof 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 No Performance Determined (NPD).

**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.**

### • 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.

### • 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 a non-combustible material may provide adequate fire protection, **but in all cases advice should be sought with 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.

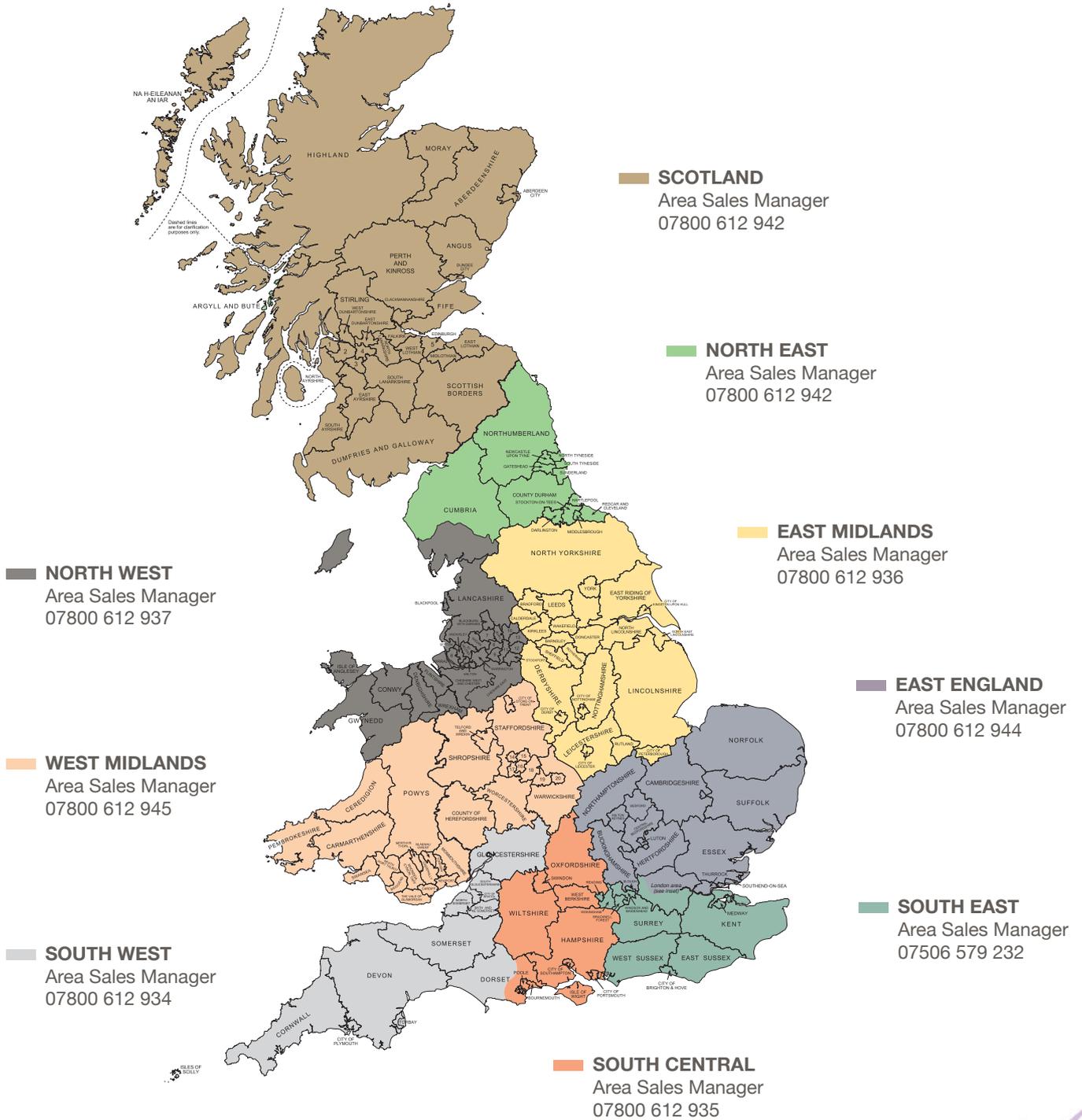
### • Sun protection

When laying Actis insulation materials outside, remember that multifoil insulation is highly reflective. Where the product is being installed in bright or sunny weather conditions, appropriate eyewear should be worn (such as sunglasses conforming to the most stringent requirements of BS EN 172, as amended from time to time) and protect against sunburn.



Example of Actis “in-situ” test cells, Limoux, France.

# YOUR CONTACTS FOR MORE INFORMATION



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