



Manufacturers and installers of the Guardian™

Conservatory Warm Roof Conversion System





Is your existing conservatory roof:

Too hot in summer or too cold in winter? I Waste of valuable living space? I Unable to relax to watch TV?

Transform your conservatory into a comfortable, all year round living space...

...with the Guardian[™] Warm Roof Conversion System:

High performance insulated warm roof conversion system | Lightweight aluminium frame Provides energy cost savings | Reduces rain noise and glare



The Guardian™ Warm Roof System is the **biggest** revelation to hit the home improvement market in the last ten years.

You can now change your old conservatory roof for a new Guardian™ Roof and effectively turn your old conservatory into a new extension that can be used all year round. The complete changeover takes just a few days with very minimal disruption to your household.

The Roof System is designed to replace the existing glass or polycarb roof of a conservatory while retaining the original windows, doors, frames and walls. At the same time providing substantial energy cost savings.

Fully tested and approved to all thermal and structural standards, the Guardian™ System is a high performance insulated roof system comprising of a pre-engineered lightweight frame, two layers of rigid insulation board, internal insulated plasterboard, exterior grade plywood, vapour membrane and a choice of external tile finishes.



The affordable Guardian™ Warm Roof Conversion System



LABC Approval (Building control England & Wales)



LABSS Approval (Building control Scotland)



Reduced fuel bills for the life of the roof



Comfortable ambient temperature all year round



A wide range of roof colours & finishes available



Fast installation utilising existing walls, windows and doors via our nationwide installer network



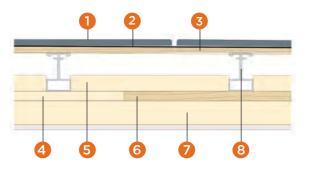
Achieves a U-value of 0.18 (England & Wales) and 0.15 (Scotland)



Thermal, structural and condensation risk tested



Fully guaranteed



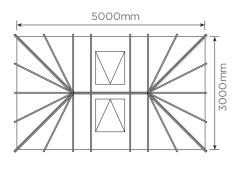
- 1 Choice of tile finishes
- 2 Membrane
- 3 Exterior grade plywood
- 4 25mm high performance insulation (timber batten cut back for clarity)
- 5 40mm high performance insulation
- 6 Timber battens
- 7 72mm high performance insulated plasterboards
- 8 Rafter

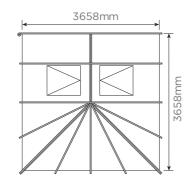
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Roof design options

Guardian™ roof provide standard warm roof solutions for existing conservatory roof design. Bespoke solutions also available.

Edwardian

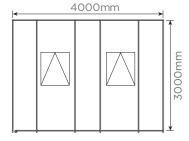


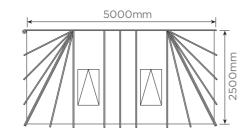


The Classic Sunroom shape. Together with attractive roof windows the Edwardian Guardian™ Roof is the traditional safe bet for styling and convenience. The Edwardian shape also helps to maximise the room space below. The roof is very sympathetic to all house styles as its ridge is so versatile, it can also be the perfect solution to a Bungalow extension.



Lean-to





The Guardian™ Lean-To is ideal to maximise space at the back of the house. The ends can either have one or to hips (slopes). It is ideal for kitchen extensions and can go as low as 15 Degrees with roof windows.



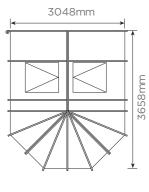






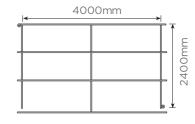
Victorian

The Victorian roof can also work really well when you might not have as much space in the garden as you would like. The internal plaster finish on the roof can look really attractive with its facet front finish.



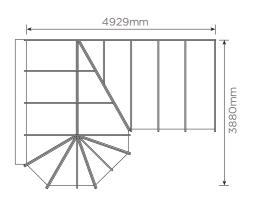
Gable ended

The gable ended main feature is its continuous height it brings to the room owing to its long ridge down the centre. The gable also allows you to get the most from your roof windows giving you a light and airy space. Suitable for replacement or new build.



Combination

Increase your options with a combination Guardian™ Sunroom. A P-Shape simply combines the benefits of two different styles to maximise the living environment. The combination can also come in what you call a T-shape.



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What you need to know

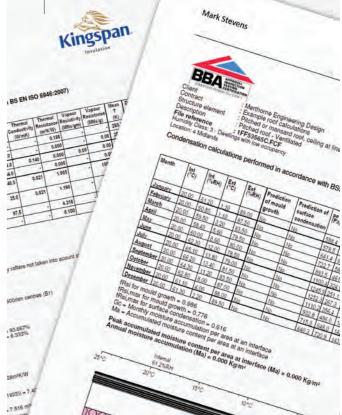
The Guardian™ Warm Roof Conversion System has been designed to provide a high performance thermal and structural solution with zero condensation risk over the life of the roof.

Kingspan Insulation condensation risk analysis









Kingspan thermal analysis &

Technical Note

AECOM.

Project:	Investigating the Effects of Insulated Conservatory Roofs	Job No:	60270677
Subject:	Results from IES Dynamic Thermal Modelling		
Prepared by:	Elizabeth Ward	Date:	25 th June 2012
Checked by:	Ewan Jones	Date:	26 th June 2012
Approved by:	Ewan Jones	Date:	26 th June 2012

The installation of insulation systems to reduce heat loss from conservatories and similar spaces provides a number of benefits. These include reduced heating requirements for both the conservatory and the adjacent dwelling as well

AECOM have undertaken a dynamic thermal modelling analysis to investigate the impact of installing an insulated roof compared with a standard conservatory roof. The effect of the insulation on a number of key variables has been assessed, particularly relating to energy requirements and carbon dioxide emissions

Dynamic Thermal Modelling
AECOM uses the IES Virtual Environment dynamic thermal modelling software which is widely accepted to be one of the leading building simulation packages. AECOM originally wrote the APACHE engine at the heart of the IES thermal modelling package and therefore is well placed to undertake detailed analysis of this nature

Dynamic thermal modelling is a powerful design tool that is routinely used for a range of building types to optimise building designs in terms of a wide range of variables including energy use, thermal comfort of building occupants and daylight levels. This process works by creating a model of the proposed building taking account of geometry. building fabric properties, building services such as heating and lighting systems and building usage in terms of neating temperatures and occupancy patterns. The building is then simulated using weather data for the relevant

■ LABC Approval

■ LABSS Approval

Each of these elements has been fully tested and approved by independent industry experts to evaluate thermal performance, structural performance, condensation risk and quantify energy savings.

The Guardian™ roof best practice approach has enabled the Local Authority Building Control (LABC) to certify the Guardian Roof System as a LABC Registered System.

The Guardian™ roof conversion is exempt if it is at ground level, does not exceed 30m2 floor area, be thermally separated from the building it is attached to, have an independent controlled heating system and have glazing that meets Part N in the critical zones.

The Guardian™ Warm Roof Conversion System is fully compliant for use in a conventional situation such as an extension and has been fully approved by LABC for use as a full replacement conservatory roof.

With Building Control approval, Guardian™ high performance insulated roof conversions may allow the removal of the wall between the house and the conservatory, offering the flexibility to extend and enlarge an existing kitchen, living room or bedroom.

Aecom energy saving study

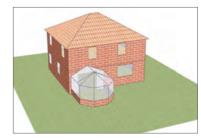
AECOM modelled a typical house with a standard "Victorian 12' x 12" conservatory.

The conservatory was northward projecting with an electric heating system. A future energy price forecasts was accounted for under the "Green Stimulus" price forecast that yielded a saving of £5,447 after 25 years.

The key conclusion drawn from this evaluation is that the greatest benefits from installing the "Guardian™" roof are made when it is retrofitted, as a result of the greater difference between the U-values of the original roof and the new roof type.

Any of the above reports are available on request from Guardian™ Warm Roof, please visit: www.guardianwarmroof.co.uk

Modelling Methodology and Key Modelling Inputs



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The Guardian™ Service Package

Building work of any kind can be a daunting process. The Guardian™ Service Package is the hassle-free way to achieve the roof conversion you want. We will manage your project and keep you informed at every stage, providing a seamless process from your original enquiry, through Planning Permission to final installation and completion.

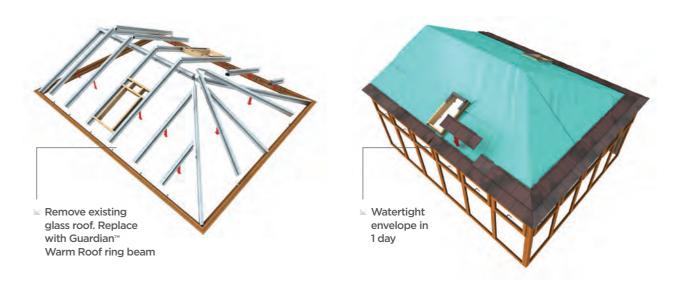


5 Weeks

From enquiry onto home visit through to design and manufacture. The Guardian™ Conservatory Roof is a unique an innovative product that will enhance your home.

Designed and built in our 80,000 sq ft production plant the Guardian™ Conservatory Roof will be delivered to your home ready to be constructed by one of our professional installation teams.

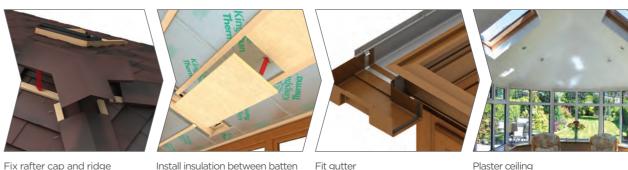
Transform your living environment in twelve simple steps











Install insulation between batten Fit gutter Plaster ceiling

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Gallery



Your Guardian™ Roof will not only look beautiful, it will also **reduce** your heating bills.

Www.guardianwarmroof.co.uk 11 www.guardianwarmroof.co.uk 11

Gallery



If you're looking for a specific, unusual or particular type of roof and can't find it on our gallery please let us know and we'll try and source it for you.

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External Finishes

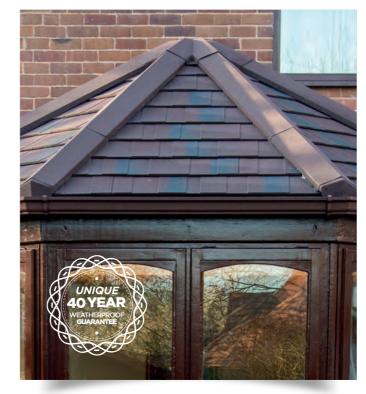
There is a brilliant range of external finishes available for your new space. From a selection of attractive roof tiles to optional Keylite roof windows maximising the amount of natural light in your room.



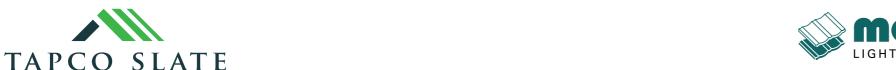












Tapco Slate gives you an authentic and attractive look from a product that carries a 50 year warranty.

A massive choice of colours available!

Traditional UK slate colours available in stock:



Stone Black















Chestnut Brown

Brick Red

Pewter Grey All other colours on extended delivery.

Tapco Slate is a premium product with premium performance, offering beauty that is built to last, the highest performance ratings, and a transferable 50-year limited warranty.





Metrotile matches closely to your existing house roof and carries a 40 year warranty.

- · Lightweight high grade steel with aluzinc® coating for incredible strength and resistance
- · Unique "hidden fix" feature leaves no nails exposed to corrosion
- · Designed to be suitable for pitches as low as 15°

Standard colours available in stock:









Antique Red Burnt Umber

Extra performance, no extra costs

Keylite offers all it's great features as standard, where other roof windows may require the use of additional cost accessories, just to achieve the same performance as Keylite.

Proven design, quality materials

Keylite is part of a leading UK building materials producer which has over 30 years experience in the design and manufacture of high performance building materials for the UK and European markets.

Patented innovation

Keylite's innovation building guarantees that their products' performance is unique. Patents mean that other conventional roof windows do not share many of Keylite's extraordinary features, all of which are designed to enhance performance and simplify the installation, operation and maintenance of products.

10 Year guarantee

Keylite Roof Windows and Flashings are covered by a 10 year guarantee. We are confident that Keylite's products will give trouble free performance throughout this period and beyond. All electric components, blinds and accessories are covered by a 3 year guarantee.

Approved

We take time to seek and win approval from relevant national bodies for both the company and our products. Our third party certifications give you the confidence that Keylite is the correct choice for your project.

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Guardian™ Conservatory Roofs

The only certified solution



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www.guardianwarmroof.co.uk