

global
conservatory roof



The UK's market-leading aluminium and PVC-U conservatory roof system,
designed without compromise and tested to the highest standards

Conservatory roofs

 synseal®

A proven roof design – independently tested



Snow load capability > 2.7m

Wind speed resistance > 250 kph

The Global roof has been exhaustively tested and the system has received British Board of Agrément (BBA) accreditation. A standard Georgian conservatory was independently assessed by façade-testing specialists Wintech Engineering to prove that Global can withstand the most extreme weather conditions, with market-leading performance results that far exceeded expectations.

BBA – test achievements

- Water penetration test at 300 Pascals: PASSED (equivalent to a Force 9 severe gale)
24 hour water penetration testing was carried out, during which the roof was deluged with 113 inches of water, more than twice the average annual British rainfall.
- Uplift test at 900 Pascals: PASSED (equivalent to wind speeds at 85 miles per hour)
- Load test of 120kg per m²: PASSED (equivalent weight of 4 feet of snow per m²)

Wintech Engineering – test achievements

Wind resistance testing using a modified DC6 aircraft engine and applying negative pressures to simulate increasing wind speeds.

- Wind speed of 90 miles per hour: PASSED (exceeding the UK's great storm of 1987)
- Wind speed of 130 miles per hour: PASSED (new record for a UK-manufactured conservatory)
- Wind speed of 160 miles per hour: PASSED (equivalent to a devastating Force 17 hurricane)

Structural integrity testing was then carried out on the same conservatory, after wind testing, with Wintech applying negative pressures to simulate increasing snow loadings.

- Structural integrity testing: PASSED (equivalent to 9 feet of snow per m²)



The UK's No 1 best-selling conservatory roof system



The Global roof system is ideal for projects of all sizes, from standard design conservatories to large bespoke structures

Global roof took the UK's No 1 position in 2005 and has been there ever since, accounting for at least 1 in 4 of every conservatory roof installed today. This well-engineered roof has been designed to be easy to specify, easy to fabricate, easy to fit and easy to maintain. That's what makes the Global roof the ideal choice for conservatory projects worldwide.

Designed without compromise

Using state-of-the-art design software, Global conservatory roofing solutions can be individually scoped to provide flexible and creative living spaces. All classical styles of conservatory can be designed using the proven Global roof along with more contemporary styled designs. Global Summer is an innovative fascia cladding and internal soffit system which enables an authentic orangery look to be achieved, at an attractive price point.



Fully tested and accredited



Large Edwardian style



Low maintenance glazing options

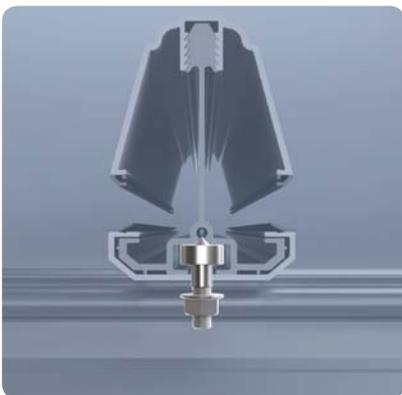


Woodgrain on White T-shape

Global roof design features



Single bolt system



Unique single fixing bolts are fastened internally for easy and quick installation. This system is totally watertight, as there is no need to drill and penetrate the main aluminium rafter meaning there are no holes for water to ingress through. The single fixing bolt is also fitted from below, making it easier to align and faster to fit than top-fitted conservatory roof systems.

Aluminium top caps



Global roof top cappings are available in aluminium and supplied in woodgrain foiled or painted finishes to specification, so they will not warp or distort under extreme heat or split under extreme cold.

Aluminium roof option



Global Plus is an optional specification which delivers a premium quality aluminium roof design. All external roofing components are manufactured from sturdy aluminium, with the exception of guttering and downpipes which use the standard Global PVC-U system for UK project applications.

global^{plus}



High strength rafters

Rafter bars are designed for increased loads so there's no need to compromise on specifications for structural design or weather performance.



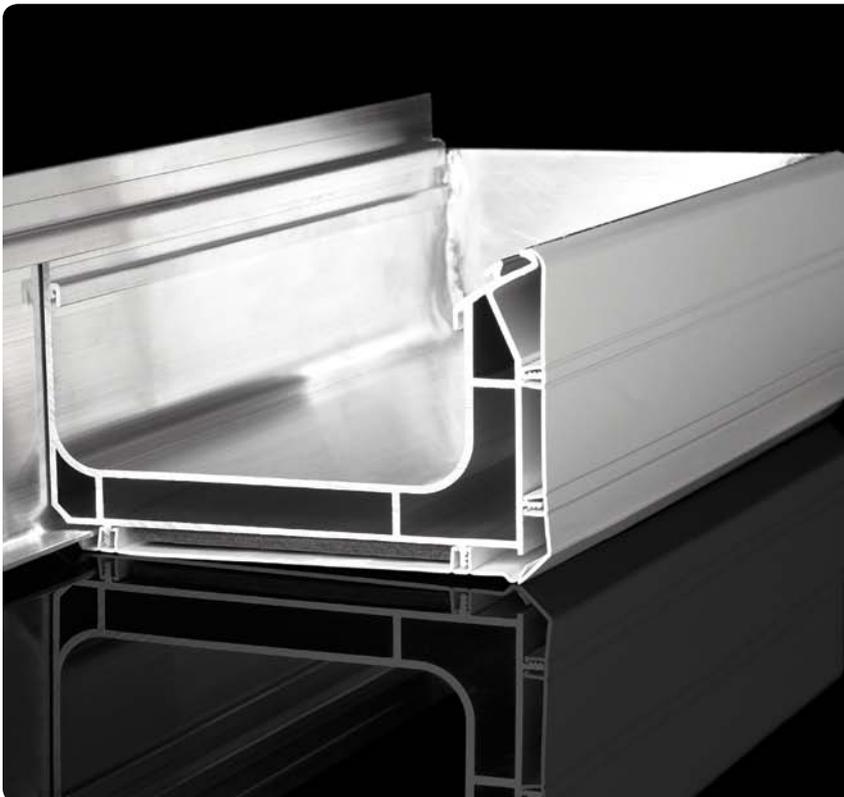
Elegant tie bar

Cross-bracing internal tie bars may be required to ensure roof stability, according to specification. Global roof tie bars are elegantly designed and do not significantly intrude into the head room of the conservatory.



End caps

End caps have a shoulder around the visible face for a more attractive appearance and have been designed with built-in drainage to relieve any trapped water.



Insulated box gutter

Global's innovative box gutter is twin skinned and insulated to reduce condensation. A special fixing plate ensures that, unlike other roofs, no holes are drilled in the gutter – so no leaks can occur and its large 205mm wide design accommodates extreme rainwater conditions. The double skin construction also increases strength and reduces sound pollution through the gutter. With no internal support brackets required, there are no potential traps for leaves or debris. Dedicated side and under claddings ensure a perfect match to the roof. Double box gutters are also available for higher capacity specifications and provide a solution for 'back-to-back' adjacent roof installations.



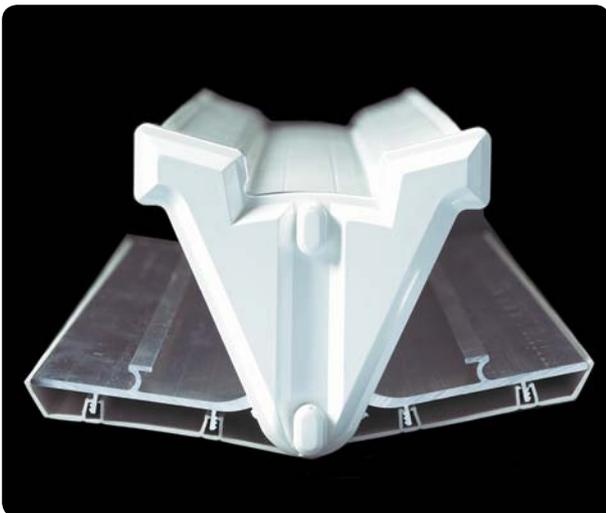
Tie bolt

When tightened, the precision engineered security locking bolt locates firmly into a dedicated channel and eradicates movement between the bolt and rafter, for a strong and rigid anti-slip joint connection.



Low level gasket system

Global roof features concealed low level gaskets, as no end user would wish to look up at their conservatory roof and see thick black gaskets around every glazed panel.



Variable valley

The flexible valley is designed to suit varying pitches and angles, and is cloaked internally and externally to give an attractive aesthetically pleasing appearance. Angled roof pitches varying from 5° to 35° can be accommodated.



Perfect lead flashing

The starter bar is designed to leave a perfect lead flashing line seamlessly connecting the house and the conservatory. The lead dresses into a built-in soaker forming a watertight seal and no lead needs to be dressed over the top cap, therefore preventing any unsightly lead lines or staining.

Range of ridges

Global roof offers 3 alternative ridge details, to ensure the right ridge can be specified for each project. These practical ridge designs are easy to fabricate and install, with no risk of subsequent draughts or water ingress.



Chamfered or contoured eaves beam cladding

Eaves beam internal claddings are designed to be easily removed for access and available in either chamfered or contoured ovolo profile, to suit the style of the conservatory's windows and doors.



A style for every conservatory project

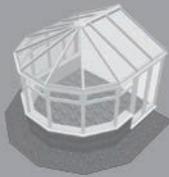
Individual design requirements will differ, so Synseal offers a range of conservatory roof styles to suit each installation. From simple lean-to designs perfect for installations with restricted height, to large bespoke designs with lantern tops.



Victorian

A bay fronted duo-pitched roof with a central ridge, normally with three or five facets at the front.

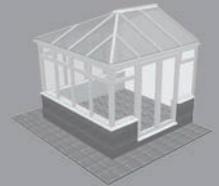
Available in sizes up to 6.5m wide.



Georgian/Edwardian

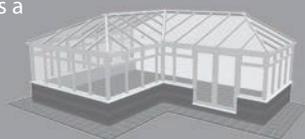
A square fronted duo-pitch roof with a central ridge. A style that maximises floor space.

Available in sizes up to 6.3m wide.



P-shaped

A combination shaped roof usually constructed from a lean-to section at the side of a Victorian/Edwardian shaped roof. This creates a versatile living space.



Gable

Gable ended roofs are a variant of the Edwardian style roof and consist of duo-pitched sides with a flat faced frontage. These can include the use of a decorative designed gable frame.



Sizes

The Global roof system is capable of wide-spans due to its robust design. Alternatively, Synseal's SkySpace portal frame solutions enable super-sized bespoke designs with wide-spans to be constructed easily.



Lean-to

A conservatory with a mono pitched roof. The pitch of the roof can be varied making it a versatile option. Pitches as low as 2.5° can be accommodated by the Global 600 lean-to-roof.



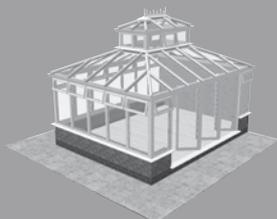
T-shaped

Another combination roof style. T-shaped conservatories are aesthetically balanced and create a versatile living space.



Lantern

Distinguished by two tiered roofs, the Lantern design adds light, height, space and grandeur.



Custom

Global conservatory roofs are bespoke manufactured and Synseal's technical and design teams are on hand to evaluate design options and help find the best possible solution.

Wide-span designs

System design enhancements allow Global roofs incorporating glass or polycarbonate glazing with wide spans of over 6m. The robust design of the Global roof system makes it the perfect solution for large conservatory projects.

Long transom and hip rafters can feature additional pre-fitted bolsters fixed to the underside of the bars for added strength.

To meet consumer demand, the footprints of conservatory living spaces in both Georgian and Victorian style can now be extended to offer wide-span designs.



Roofs up to 6.5m wide

After extensive testing by CMT, an independent UCAS approved company, the Synseal eaves beam has been tested to 2 tons and will support a Georgian roof up to 6.3m and a Victorian roof up to 6.5m wide.

Openings up to 5m wide

To provide the wider openings that increasingly popular bi-fold doors require, Synseal have developed a bi-fold door support, which combined with their heavy duty eaves beam can accommodate doors up to 5m wide.

Heavy duty eaves beam

Bi-fold doors can open up virtually the whole side of a conservatory to provide added space and flexible access to adjacent gardens. Synseal has created the perfect bi-fold door solution that ensures their effective operation in use, featuring a heavy duty eaves beam that will support an opening of up to 5m in width (depending on the style of conservatory and the location of the opening).



Heavy duty eaves beam at-a-glance

- Designed for ease of installation and flexibility of use, available in a choice of two profile lengths
- Manufactured from aluminium with weather resistant PVC-U claddings, available in a range of colours
- The most cost-efficient support solution available, eliminating the need for expensive steel structures or the unnecessary expense of continuing the wide span support around all of the conservatory elevations, as frame height can be simply altered by 50mm on the remaining elevations to allow for the height of the additional bi-fold door support

SkySpace portal frames



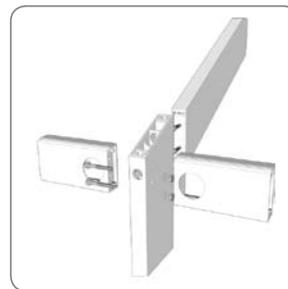
Global Summer orangery style large conservatory using a SkySpace portal frame structure

For super-sized conservatories and architectural wide-span glazed structures, SkySpace aluminium portal frames can be custom designed to carry Global roof assemblies and meet specific project requirements.

Portal frame aluminium profiles bolt together and include purlins and welded angled trusses, as required. Bespoke SkySpace portal frames are test-assembled on the factory floor to check precision of manufacture, prior to despatch.

This approach suits projects sized from 30m² to 2000m² and unsupported clear spans of up to 35m can be achieved using the SkySpace system.

SkySpace aluminium portal frames are an ideal specification for swimming pool enclosures, able to easily cope with exposure to chlorine and constant high humidity levels.



Eaves purlin - exploded view



Hotel leisure centre



Banqueting atrium



Bespoke structures for unique spaces

Installations



Coloured roofs to suit each project

Conservatory roofs can be supplied in traditional woodgrain and painted effect foils in a range of popular, eye-catching colours.

Different foil finishes can also be applied to inside and outside conservatory faces, as required – for example, an eye-catching external colour combined with White internally is a typical specification.



Woodgrain White



Cherrywood



Golden Oak



Mahogany



Cream



Chartwell Green



Grey



Black/Brown

The colours shown are designed as a guide to the Woodgrain and Artisan Woodgrain Collection. Before making your final decision, please ensure you have seen a foil swatch.



Global Plus aluminium roof components are available in White, Brown and Caramel powder coated finishes and also mill finish, for powder coating in a RAL colour according to specification before supply.

Finials and crestings

One of the most visually striking and classical design aspects of a conservatory are the finials and crestings. The interlocking PVC-U sections of the Global roof crestings incorporate an interlock to ensure that once connected they remain in a perfect line. A range of decorative finial designs are available in suited colours to match the roof.



Ball finial and Shield cresting



Global finial & Global cresting



Stud finial and non decorative cresting



Shield finial and cresting



Global Plus aluminium finial and cresting

Glazing options

Sealed IGU products, custom-made to specification

The need to control solar glare in summer and minimise heat loss in winter calls for the selection of high performance toughened and annealed roof glass.

24mm double glazing is a typical roof glass specification, comprised of either 4:16:4 or 4:14:6.4 units, as the weight of these units is easily handled by the roof structure.



A range of roof glass solutions is available from Global Glass, including solar control, low maintenance, Low E and gas filled options.

Solar control glass

Solar coated glass is commonly used on conservatory roofs to help prevent the build-up of heat during the hot summer months. The coating on the glass helps reflect heat from the sun back to the outside atmosphere, giving a more comfortable and useable living space. The glass is available in a range of tints which allows the glass to absorb more heat, whilst the coating reflects heat back to the outside.

Low maintenance glass

A revolutionary low maintenance coating is applied to the glass as part of the manufacturing process, which means that it is fused to the surface of the glass and therefore lasts the lifetime of the pane. The coating uses the rain and natural light from the sun to efficiently combat the dirt and grime that accumulates on the outside of the window. By reducing the need for manual cleaning, low maintenance glass provides an ideal and safe solution for keeping hard to reach or hazardous glazed surfaces clean.



Normal glass



Low maintenance glass



Double glazed units with spacer bar options

Low E glass

Low E glass has a microscopic metal coating which reflects heat back into the room. DG units incorporating this specially coated glass offer up to 33% more insulation than conventional insulated glass units.

Polycarbonate

Polycarbonate is a lightweight insulating glazing product manufactured from damage resistant material and available in a range of colours. Added protection provides resistance against the effects of UV weathering.

Polycarbonate is inherently strong and provides both economy and practicality - being sold in flexible sheets which are supplied cut to size and can even be trimmed on site if necessary. Today mainly 35mm and some 25mm thick polycarbonate is used for conservatory roofing, but the trend is that more consumers prefer the quality and visual clarity of high-performance glass.



Bronze



Silver Opal



Clear



Opal

CELSIUS™
PERFORMANCE GLASS



Global Summer interior finished in Chartwell Green with Celsius Elite high performance glass

Celsius Performance Glass utilises a Low E and solar control combination coating, with an Argon filled cavity, to control the amount of visible light, UV and heat that pass through the glazed unit. Easy Clean technology has also been added to reduce maintenance requirements.

	Standard Glass	25mm Polycarbonate	CELSIUS One™ PERFORMANCE GLASS	CELSIUS Elite™ PERFORMANCE GLASS	CELSIUS Clear™ PERFORMANCE GLASS
U-value	2.8	1.6	1.0	0.9	1.0
Solar factor	75%	55%	22%	22%	42%
Visible light transmission	80%	68%	38%	34%	61%
Heat reflection	25%	45%	78%	78%	58%
UV protection	25%	45% (bronze)	94%	94%	73%
Toughened to BS EN 12150-1	✓	✗	✓	✓	✓
Manufactured to BS EN 1279-2	✓	✗	✓	✓	✓
10 year warranty against seal failure	✓	✗	✓	✓	✓
Easy clean coating	✗	✗	✓	✓	✓
Cavity fill	Air	✗	Argon	Argon	Argon
Tinted	✗	✗	Blue tint	Blue tint	Neutral tint

The at-a-glance comparison figures shown are for guidance purposes only. Slight variations may occur due to glass specification, time of year, manufacturing tolerance, point of manufacture and type of instrumentation used.

Solar Factor: The percentage of total energy (heat) from the sun which is able to pass through the glass.

Visible Light Transmission: The percentage of visible light which is directly transmitted through the glass.

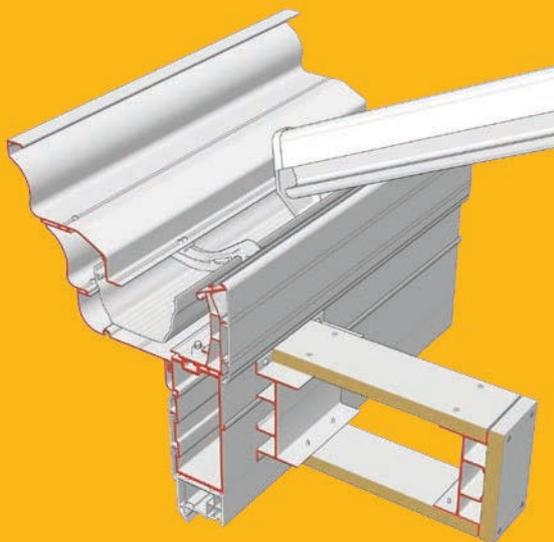
UV Protection: The percentage of damaging UV rays from the sun which is unable to pass through the glass.

Global Summer is a design enhancement of the proven Global conservatory roof that provides a cost-effective orangery solution. Global Summer delivers the distinguished look of a traditional orangery without the need for expensive parapet walls, leak prone flat roofs or the added engineering complexity of a lantern roof.

As simple to install as the rest of the Global range, Global Summer uses high-quality aluminium decorative gutter fascias and internal pelmet pods that hook onto the eaves beam to create a soffit feature detail. These unique pelmet pods provide a rigid former for plastering to and allow downlighters or speakers to be incorporated into the internal soffit for added consumer appeal.

Two fitting options

Global Summer has two main fitting options - raised line and low line - which alters the height that the decorative gutter fascia sits above the conservatory windows.



Raised line installation

Raised line installations use the orangery eaves beam extender beneath a standard eaves beam to lift the roof 170mm over the frames and provide increased space between the pelmet pod internal soffit and the roof. This increased height adds grandeur to Global Summer installations and delivers a more authentic orangery look.



Low line installation

Low line installations use a bi-fold door support underneath the heavy duty eaves beam to keep the pelmet pod internal soffit in line with the conservatory's gutter. Low line is ideal when the overall conservatory height needs to be contained, or to fit in with a more compact property's proportions.



T-shaped Chartwell Green Global Summer installation with gable-end mid section



Decorative pilasters

Decorative pilasters are an eye-catching feature which help to evoke the aesthetics of classical orangery design. Manufactured in GRP and available in White, Blu White, Cream or Chartwell Green painted finishes, the pilasters perfectly complement the roof, include self-draining flutes and are a beautiful addition to any raised line Global Summer installation.



Designed to enable conservatory installers to offer an attractive and easy to install orangery solution - Global Summer provides stylish aesthetic appeal with additional practical benefits, such as incorporating downlighters into the pelmet section which add value and enhance the Global conservatory roof system.