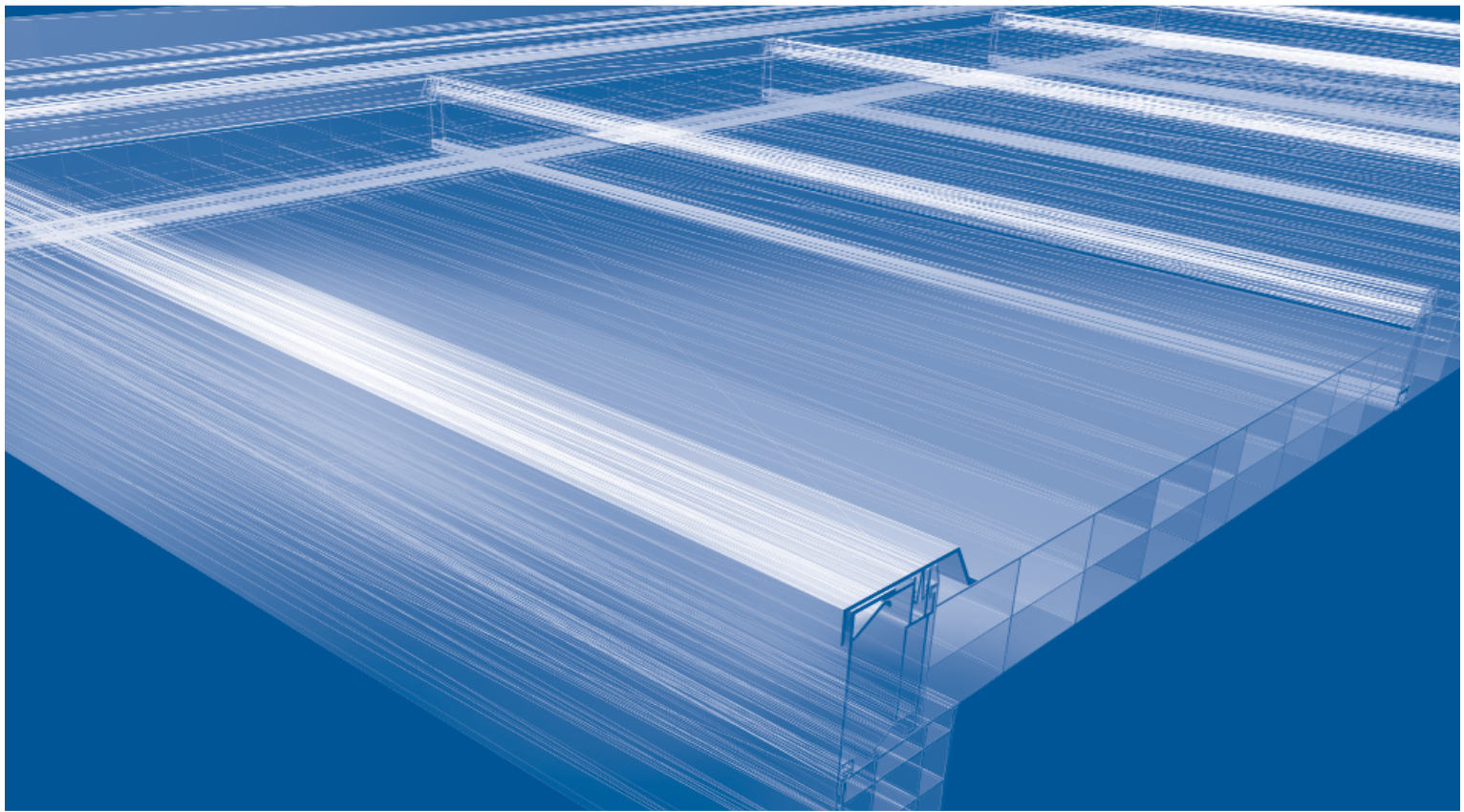


ultraframe

ULTRALITE[®] 500[®]
roof in a box[®]



Technical Guide

Version: 4.0
Nov 08

Ultraframe: world class conservatory systems

For 25 years Ultraframe has continually been at the cutting edge of conservatory roof systems design and engineering.

innovation

Our extensive design resources are focused on developing products that will keep you at the cutting edge of conservatory roof construction and provide the homeowner with greater style and value for money. All this is aimed at helping you secure more sales and helping your business to grow.

engineering

Everything in an Ultraframe system is underpinned by the soundest of engineering principles. Nothing is compromised, no risk is taken and no corners are cut as we realise that it is the installer's reputation that is at risk as well as our own. At the time when there were no national industry standards, Ultraframe created them. First, by obtaining ISO for quality management systems and then BBA certifications for our roof products.

business support

At Ultraframe we offer our customers the highest level of support. From technical on site assistance and our Customer First team for all phone enquiries, to dedicated regional sales teams and full marketing support.

training

We train then we train again. Not just internal staff but installers, sales teams and surveyors too. Over 1,000 companies per year visit the School of Excellence at Clitheroe or take advantage of our field based training.



BBA certified at 2½° is and ideal for commercial or domestic use

Ultralite®500 from Ultraframe is designed for use at just 2½°, the lowest roof pitch attainable in a practical on-site application. This means it can be used on almost any property, even bungalows and awkward shaped dwellings.

Ultralite®500 incorporates many key features which enhance it's performance and give it a significant advantage:

- Ultralite®500 is a free-spanning system with integral aluminium strengthening bars, making it perfect for large commercial properties as well as homes
- Built-in sun diffusion - reduced glare from bright sunlight
- Controllable ventilation system **unique to Ultraframe**
- Clean, uninterrupted lines make Ultralite®500 ideal for consumers who prefer the understated look of a Mediterranean style conservatory

These features combined help to achieve a comfortable conservatory environment - the perfect conservatory.

Not only this but to provide you and your customers with total peace of mind Ultralite®500 comes with:

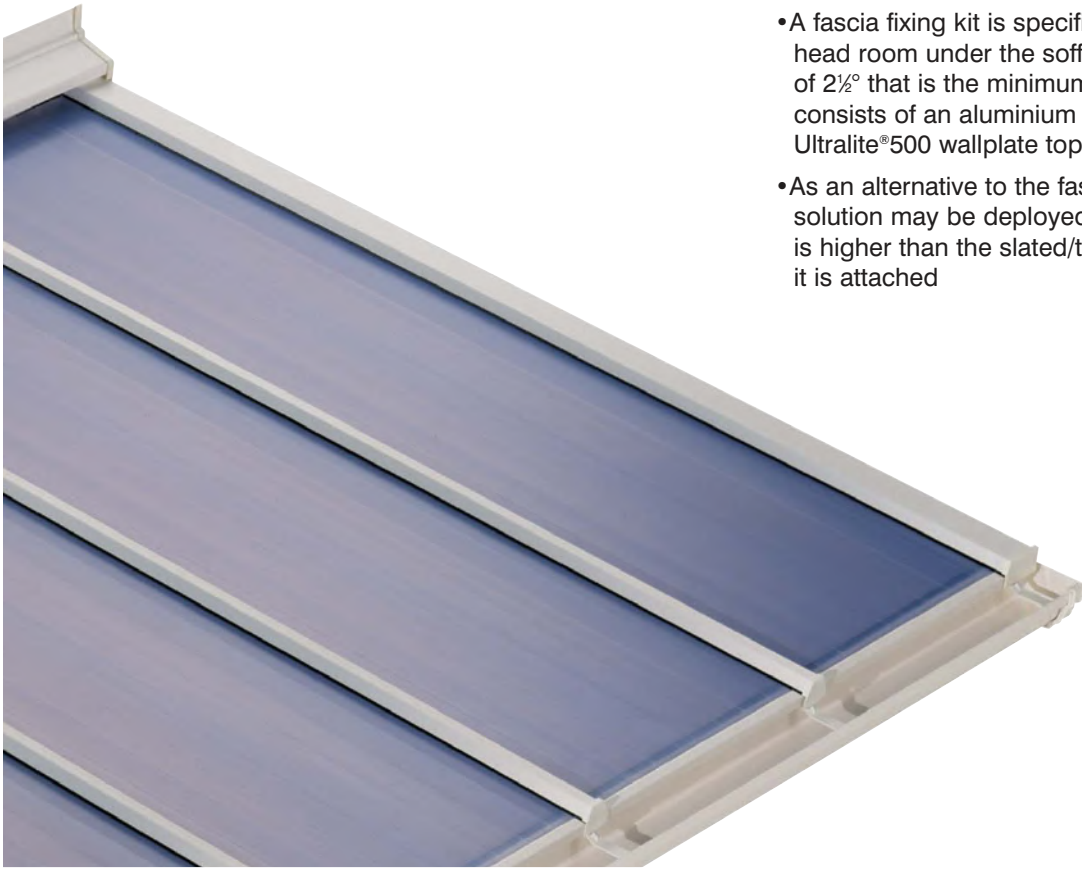
- **10 year manufacturer's warranty***
- **"Life expectancy of at least 25 years"**, as certified by the BBA

* ask for full details

ultraframe
ULTRALITE® **500**
roof in a box®

product in close up

- Ideal for timber, aluminium or PVCu frames, providing flexible solutions for your customers
- Guaranteed for use at a pitch of just 2½° - making it suitable for more properties - highly flexible
- Ultralite®500 is tried and tested, making it quick and easy for you on site
- Excellent light transmission properties (typically around 70%) make Ultralite®500 perfect for everyday use
- Thermally efficient with a U Value of 1.9Wm²K⁻¹ for a comfortable interior environment
- Ultralite®500 has a co-extruded UV stabilised coating for an extra long life
- A free span of up to 4m can be achieved before additional purlin supports are needed
- Optional PVCu furring for 2½° pitches reduces on-site installation times and means there is no need to manufacture complex raked frames
- Standard ventilated wall plate allows for effective ventilation and a comfortable conservatory environment - another plus point brought to you by Ultraframe
- Ultralite®500 is suitable for use with Conservafash™ - the fast & simple flashing system that can save you up to one hour on each installation - unique to Ultraframe
- A fascia fixing kit is specified when there is inadequate head room under the soffit, even at the incredibly low pitch of 2½° that is the minimum for Ultralite®500. The product consists of an aluminium extrusion that fixes the Ultralite®500 wallplate top capping at the fascia position
- As an alternative to the fascia fixing kit, the box gutter solution may be deployed when an Ultralite®500 roof is higher than the slated/tiled bungalow roof to which it is attached



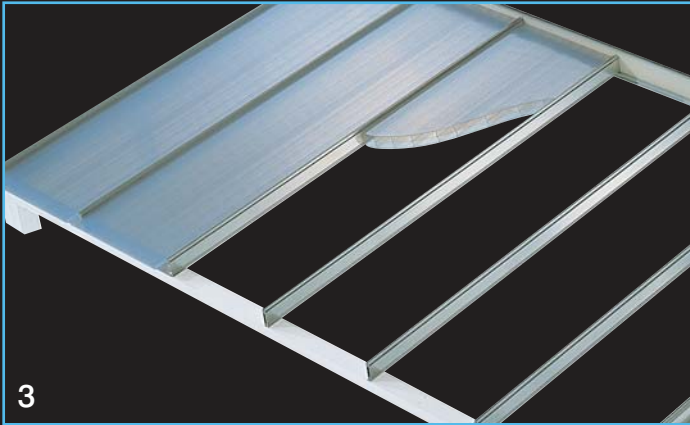
**WARRINGTON
FIRE
RESEARCH
CENTRE**



1



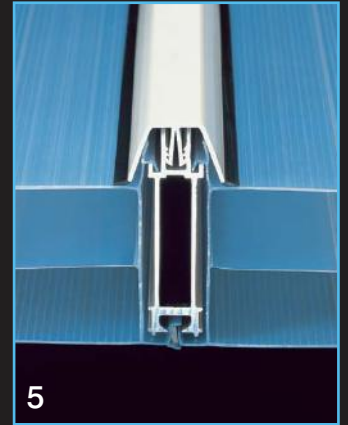
2



3



4

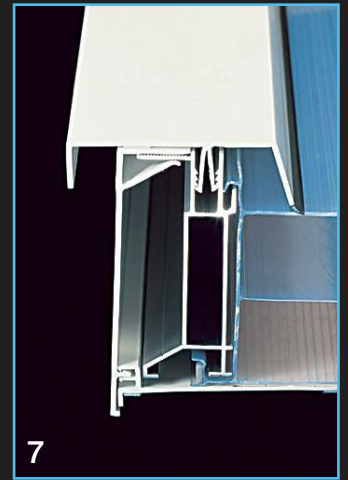


5

- 1 Bungalow fascia boxgutter
- 2 Furring detail
- 3 Aluminium structure
- 4 Conservaflash
- 5 Intermediate bar
- 6 Wallchannel and ventilation
- 7 Starter bar



6

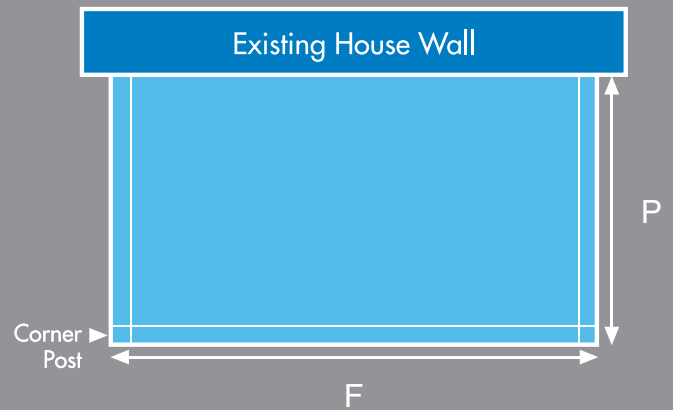


7

setting out saves time and money

Careful planning, prior to discussing actual conservatory sizes with your customer, can save time, money, waste and effort. To ensure that common terminology is used throughout, the drawing opposite defines two important measurements that form the basis of your calculations prior to ordering and construction. All Ultralite®500 roof calculations begin with two basic measurements as shown in the diagram opposite.

ALL SET OUT DIMENSIONS ARE EXTERNAL FRAME



'F' front frame width (including corner posts)

'P' projection (this is measured from face of back wall to external face of front frame)

ordering the correct panel widths

Whenever possible, design the conservatory to use panels in full width (ie modular, thereby saving on time and labour cutting panels) and to the standard panel length.

Designing your customer's conservatory as little as 50mm less in width or projection could lead to a substantial saving due to the use of standard panels.

The table (right) will allow you to calculate the number of panels required for the system and to determine how to work to modular widths.

Number of Packs	Number of Panels	Front Frame Width(F)
2	=4	2052
3	=6	3052
4	=8	4052
5	=10	5052
6	=12	6052
7	=14	7052
8	=16	8052
9	=18	9052
10	=20	10052

The above 'set out' dimensions are based on using Ultralite®500 at 2½° pitch and takes account of the drip end overhang and the ventilated wallplate offset.

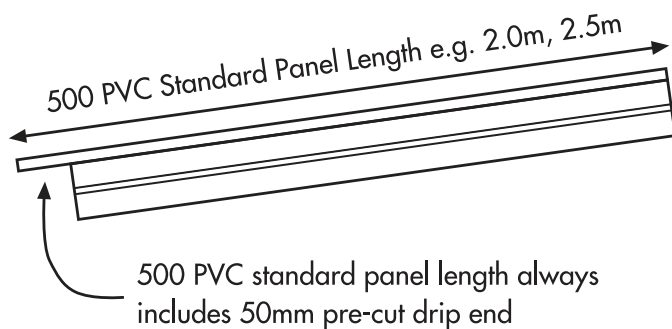
ultraframe
ULTRALITE®500
roof in a box®

split packs available

Panel packs contain 2 standard panels, with a nominal coverage of 1000mm. The dimensions below also take into account the starter bar allowance of 52mm applicable to Ultralite®500 roofs. When split packs are used, simply multiply the number of panels by the panel width of 500mm and add the 52mm starter bar allowance. For example, 3½ packs (7 panels) is $7 \times 500\text{mm} + 52\text{mm} = 3552\text{mm}$.

ordering the correct panel lengths

It is important to match as closely as possible the required length to the standard panel length. Careful conservatory design such as this can lead to a material cost saving.



Factoring in a $2\frac{1}{2}^\circ$ angled roof pitch, a standard 2.0m panel of Ultralite®500 will give a projection of 1976mm to the **external face of the front frame**, and so on.

These 'set out' dimensions also take into account the drip end overhang of 50mm and the ventilated wallplate offset.

At $2\frac{1}{2}^\circ$, the rise is 44mm per metre of projection, ie for a 6m projection it will be 264mm, plus 177mm for wall plate and top cap.

Standard panel length	Actual Projection (P) (external face, front frame)
2.0m with PVCu furring	1976
2.5m with PVCu furring	2476
3.0m with PVCu furring	2975
3.5m with PVCu furring	3475
4.0m with PVCu furring	3974
5.0m with timber furring	4973
6.0m with timber furring	5972



Ultralite[®]500 specification

	500 PVC
Modular panel width	500mm
Overall system depth	85mm
Glazing panel depth	60mm
Glazing panel material	PVC
Reinforcement material	Aluminium beam
'U' Value	1.9Wm ⁻² K ⁻¹
Weight	6kg/ m2
Pitch	2.5° min - 10° max
Glazing panel colour	Opaque
Light transmittance	70%
Ventilated wall plate	Standard
System colour	White, Deeplas
PVC-U firing kit	Optional (2.5° only)
Stock panel lengths	2m 2.5m 3m 3.5m 4m 5m 6m
Roof Blinds	Not to be fitted
FIRE RATING	BS 476: Pt. 3 EXT.F.AAX

ultraframe

Ultraframe (UK) Ltd
Salthill Road,
Clitheroe,
Lancashire. BB7 1PE

tel : 0870 414 1002

Buy direct or from your nearest Ultraframe fabricator/distributor:

www.ultraframe.com

Ultralite[®], Roof in a box[®] and Conservafash[®] are registered trademarks of Ultraframe (UK) Ltd