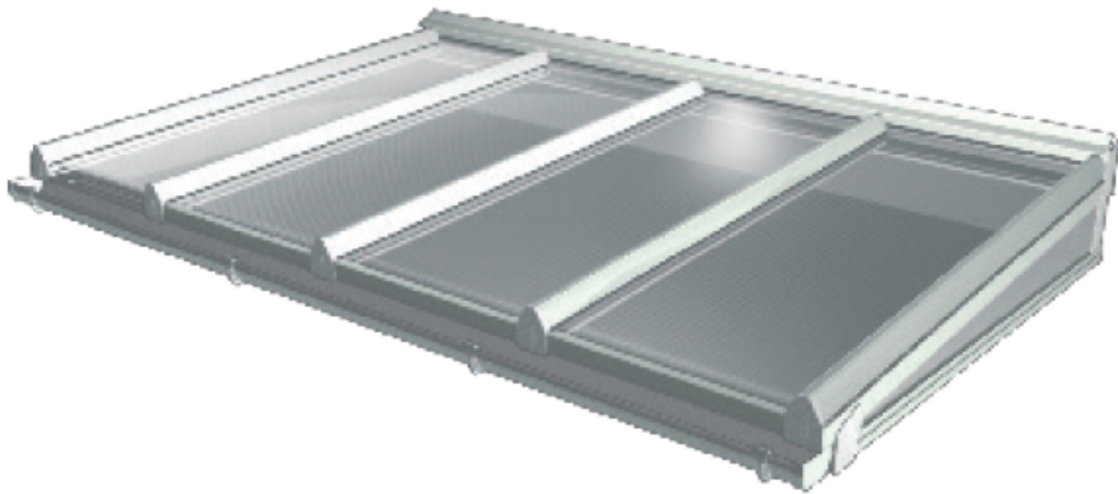




## SELF SUPPORT ROOFING SYSTEM



The Ariel Self-Support Roofing System free-spans up to a 4M rafter length, and accommodates 16mm, 25mm and 35mm Corotherm Multiwall Polycarbonate Roofing Sheets. It is not a cantilever design, it requires support at the wall, provided by the Wall Bar, and support at each corner, provided either by Goal Post Legs, or by your own supports. The Self-Support Roofing System can also fix directly into the top of double glazed windows. It is easy to install and low maintenance.

1. [PLANNING YOUR ROOF](#)
2. [SELF SUPPORT COMPONENTS](#)
3. [INSTALLATION INSTRUCTIONS](#)

# PLANNING YOUR ROOF

First, know the length and width of the roof you are planning. The distance between the centres of the rafter bars depends on the slope length (verge length) of the roof.

Roof Slope/Verge Length	Maximum Distance Between Centres of Rafter Bars
3.2 m	900mm
3.35 m	800mm
3.5 m	700mm
4.0 m	600mm

The Self Support Roofing System cannot be used for roofs over 4m long. This is based on a loading of 0.6KN/M2 – which is loading for normal UK weather conditions.

## Roof Width

The top of the slope of the roof must sit against a wall. The distance along the wall is the roof width. Either calculate the roof width by multiplying centres. Or calculate centres by dividing the roof width.

## Roof Pitch

The slope of the roof must be a minimum of 10° and can be a maximum of 25°.

## Sheet Sizes

Self Support Bars fit between the sheets. The End Bars require a 50mm gap between the end of the sheets and the end of the roof. The Intermediate Bars require a 25mm gap between adjacent sheets.

<b>Sheet Thickness Options</b>	10mm Twinwall, 16mm Triplewall, 25mm Sevenwall.
<b>Sheet Length Options</b>	2m, 2.5m, 3m, 4m
<b>Sheet Width Options</b>	700mm, 800mm, 900mm, 1050mm, 1600mm, 2100mm
<b>Sheet Colour Options</b>	Clear, Bronze, Opal, Bronze-Opal, Heatguard-Opal

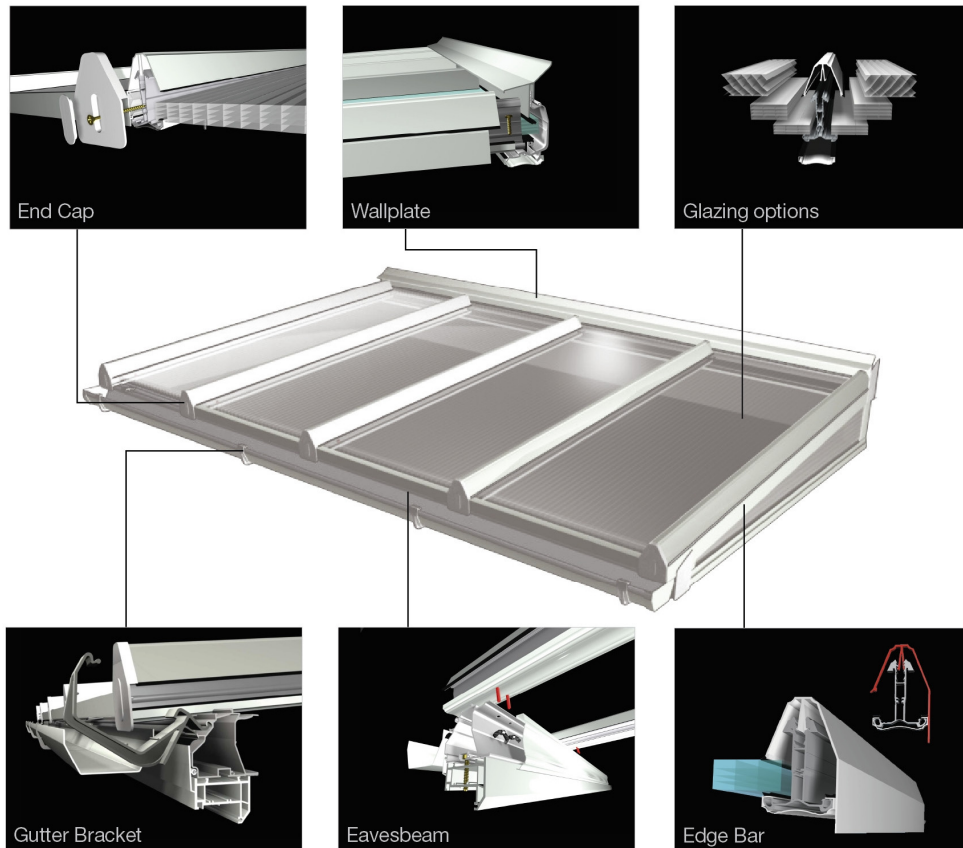
10mm thick sheets also come in 980mm and 1220mm width.

16mm thick sheets also come in 610mm, 980mm and 1220mm width.

Thicker sheets are stiffer and have better thermal properties.

# SELF SUPPORT COMPONENTS

The Self-Support Roofing System is designed with flexibility in mind, to suit a wide variety of roof sizes, shapes and applications.

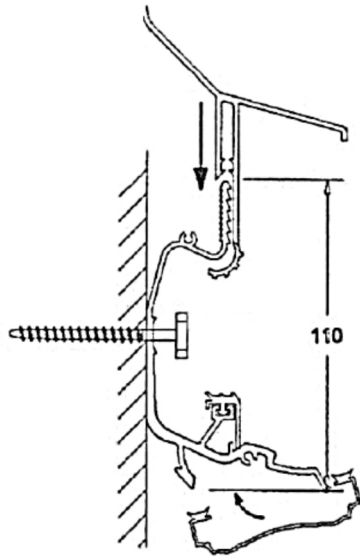


## Components Required:

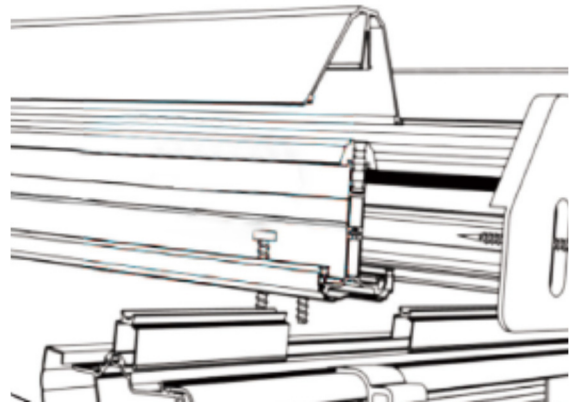
- Two End Glazing Bars – one for each end. Bars are of length 2.5M, 3M, 3.5M and 4M. Bars can be cut down to a shorter length if desired. The two longer bars are wider to support the longer length.
- As many Intermediate Glazing Bars as required – one between each sheet.
- Each Glazing Bar is supplied with an End Cap. If a Bar is to be cut to make multiple Bars, then more End Caps will be needed.
- The Wall Plate fits against the wall and is of length 3M, 4M or 5M. Wall Plates can be added and butted up together along the wall to make a roof of any width.
- The Eaves Beam is of length 3M or 4M. If a longer roof width is required, use the Eaves Beam Connector to join Eaves Beams. Eaves Beam Connectors must be supported.
- Self Support System Goal Post legs can be used. These are 2.5M high and come in packs of two. Alternatively the roof can rest on a pre-made structure.
- For the sheets, three more items are required: Aluminium Sealer Tape to seal the top end of the sheets, Breather Tape to protect the bottom end of the sheets, and Sheet End Closures to finish the bottom end of the sheets.

# INSTALLATION INSTRUCTIONS

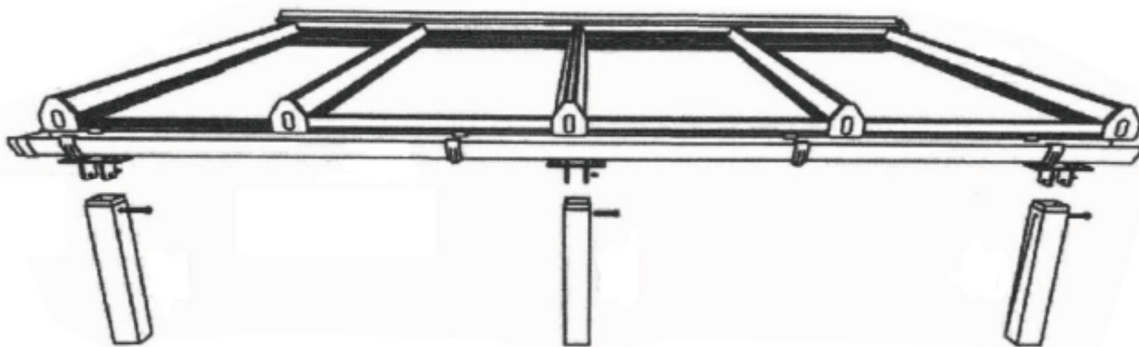
2. Fix the Wall Plate to the wall at the correct height.



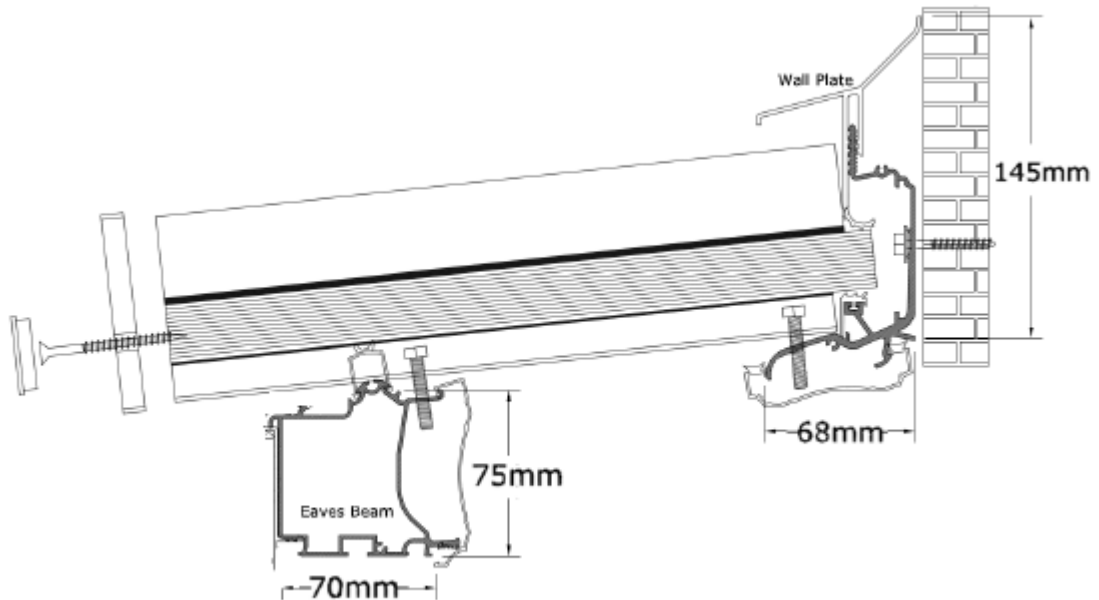
1. Cut the Panel Support Trim on the Eaves Beam to fit in between each Glazing Bar



3. Fix the Goal Post Legs to the Eaves Beam and stand in position, or fix the Eaves Beam to the window head, or fix the Eaves Beam to the builder's supports.



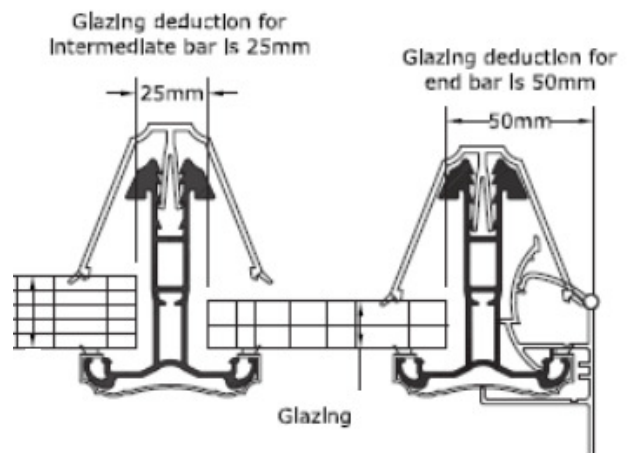
- Fix the Glazing Bars to the Wall Plate and Eaves Beam at the correct centres using Self Drill Screws. (If an End Bar is next to a wall, this needs weathering to the wall.)



- Cut the polycarbonate sheets to size if necessary, tape the top and bottom ends and lay them into position between the Glazing Bars.

- Place the Glazing Bar Top Caps on the Bar so that they project out 5mm over the gutter. Tap these gently down onto the sheets.

- Attach the Sheet End Closures to the ends of the polycarbonate sheets.



- Fix the End Caps to the Bars using the screws provided

- Fix the End Caps to the Eaves Beam and Wall Plate.