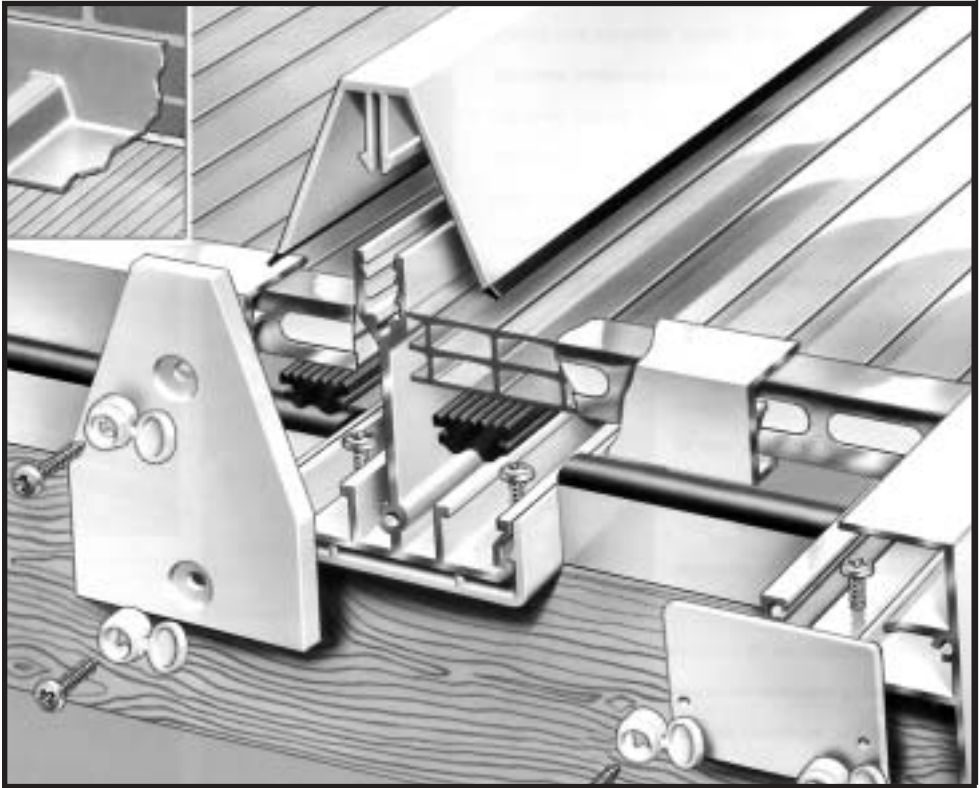


# TWINFIX

## Fixing Instructions for the Twinfix 600 Structural Glazing Bar System



### Tools you will need to construct your Twinfix roof:

Tape Measure  
Screwdriver  
Spirit Level  
Hacksaw  
Drill  
Hammer

Twinwall Fixings (UK) Limited  
201 Cavendish Place  
Birchwood Park  
Risley  
Warrington  
Cheshire WA3 6WU

Tel: 01925 811311  
Fax: 01925 852955  
Email: [enquiries@twinfix.co.uk](mailto:enquiries@twinfix.co.uk)  
Website: [www.twinfix.co.uk](http://www.twinfix.co.uk)

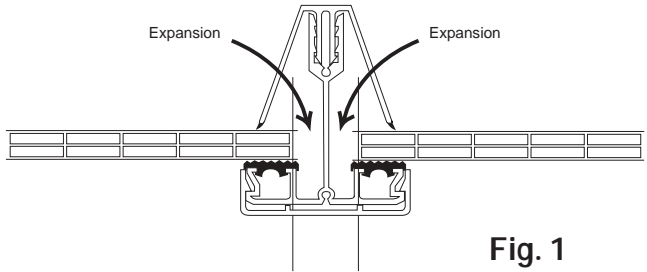
# System Description

The 600 System is designed for installing multiwall polycarbonate glazing and will span up to 3500mm unsupported. It consists of an aluminium base bar and a PVCu push fit capping bar which clamps the multiwall glazing firmly and securely in place. There is also a wide range of other complementary items, fixing accessories and matching profiles. The 600 System is supplied complete with a PVCu underclad.

# Design Detail

Multiwall polycarbonate sheet is normally used on a roof with a gentle slope, which will allow rainwater to drain into guttering. We recommend that the minimum slope should be 5 degrees. The 600 System can be used with 16mm, 20mm and 25mm sheet.

Sheets of polycarbonate will expand and contract as temperatures change, always leave room to accommodate expansion when joining sheets on glazing bars. Sheet widths should be reduced by approximately 20mm to allow for expansion. For example, if your glazing bars are 1000mm apart (centre to centre), use a 980mm wide sheet.

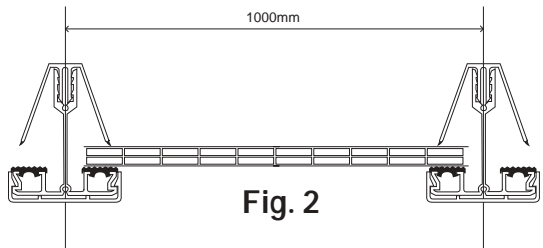


**Fig. 1**

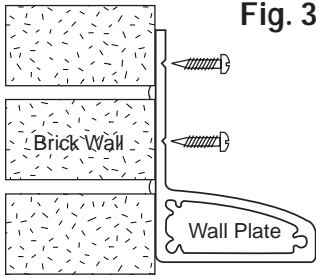
Sheet Thickness	Glazing Bar Centres	Spans Unsupported
16mm	1000mm	3500mm
25mm	1200mm	3500mm

When ordering or cutting polycarbonate sheet to required length remember that your sheet should be 10mm shorter than your glazing bars to allow for the fitting of aluminium U profiles. We can supply you with sheet that has been cut to size, blown and sealed in our factory, (in which case disregard steps 6 and 7).

Purlins and rafters are rarely needed when using the 600 System as the bar can support itself up to 3500mm. 16mm sheet can be accommodated on glazing bar centres of no more that 1000mm (Fig. 2).



**Fig. 2**

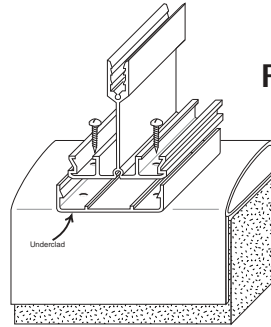


**Fig. 3 Step 1:** Fit the aluminium wall plate (Ref. 290). The wall plate can accommodate all Twinfix bar systems at angles ranging from 5 degrees to 25 degrees (Fig. 3). Fix the end plate for a neat finish to the end of the wall plates.

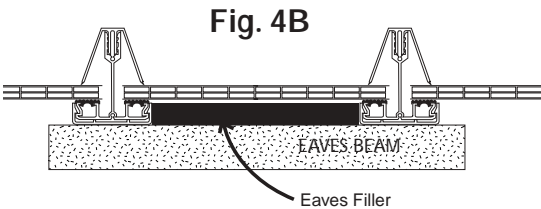
**Step 2:** Fit the aluminium eaves beam (Ref. 291) to the eaves end of the structure. The eaves beam can accommodate all the Twinfix bar systems at angles ranging from 5 degrees to 25 degrees. Fix the end plate for a neat finish to the ends of the eaves beam between the glazing bars.

**Step 3:** Fit the underclad (Ref. 284) to the base bar. Screw the aluminium base bar to the eaves beam and wall plate and to purlins if they are being used (Fig. 4A). Slide in the 280 Gasket. Please note, if buying the bars in the pre-packs, the gasket is supplied already pressed into the bars.

**Step 4:** Fit eaves filler (Ref. 285F) at the eaves end. This fills the gap between the underside of the sheet and the top of the support structure (Fig. 4B). If other materials are being used as a wall plate and/or eaves beam, please use barrier tape to avoid electrolyte corrosion between the 600 glazing bar and the wall plate and/or eaves beam.



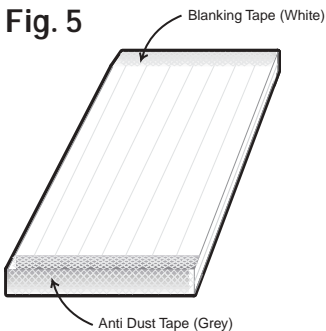
**Fig. 4A**



**Fig. 4B**

**Step 5:** Cut the glazing bar cap to the required length. Gasket for the 600 glazing bar cap is manufactured as a co-extrusion of the cap.

**Step 6:** Ensure the sheet is free of any swarf or dirt by blowing air through the flutes and sealing the ridge end of the sheet using blanking tape (Ref. BT 16/25). This permanently closes the ridge end of the sheet and stops further ingress of dirt or moisture (Fig. 5). Sealing the sheet can be done at the factory prior to delivery.



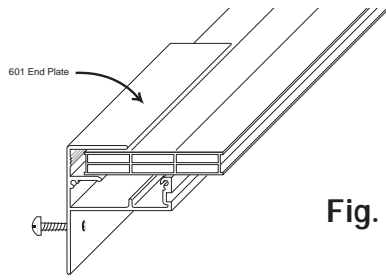
**Fig. 5**

**Step 7:** Seal the eaves end of the sheet with anti-dust tape (Ref. ADT 16/25). This closes the eaves end helping to prevent dust entry whilst allowing condensation drainage (Fig. 5). Sealing the sheet can be done at the factory prior to delivery.

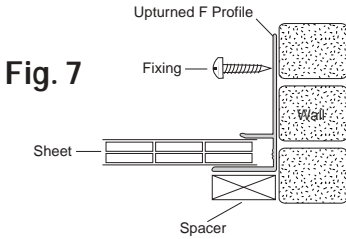
**You can now start to fix the roof sheets; starting at one side of the roof and working across, fixing and dressing down flashings as you go.**

**Step 8:** Fit U profile (Ref. 253/255) over the sheet at the ridge end. Screw fix the side trim (Ref. 601/602) to the side of the structure and slide the sheet into the side trim (Fig. 6). Ensure the sheet is level by using a spirit level.

**Please Note:** Multiwall polycarbonate has protective film on both sides, however only one side is printed. This is the side that should face outwards. Do not forget to remove the masking film on the underside of the sheet.



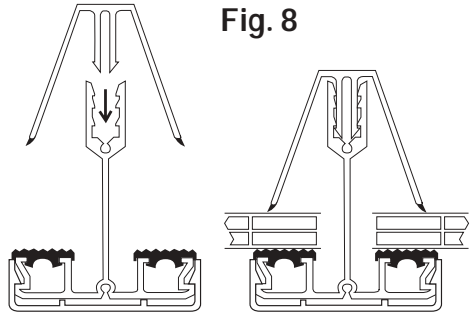
**Fig. 6**



**Fig. 7**

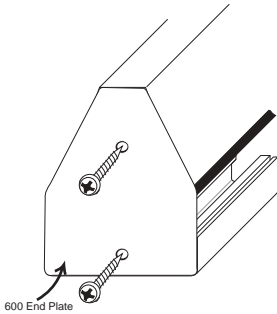
**Step 9:** If fixing a sheet of multiwall polycarbonate to a side wall, then use an upturned F profile with a suitable spacer (Fig. 7).

**Step 10:** Place an adjoining panel into position with top U profile fitted. The 600 cap is a clip in pressure cap. Push fix the 600 cap into the aluminium base bar (Fig. 8). Repeat this process for the remaining panels. On the end panel repeat step 8 to finish off.



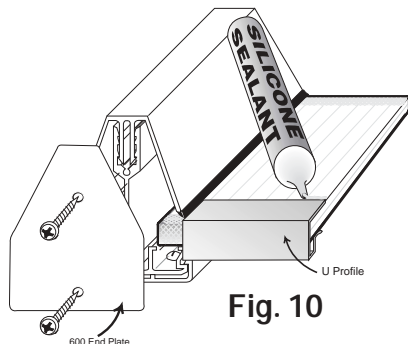
**Fig. 8**

**Fig. 9**



**Step 11:** Screw fit the polycarbonate end plate (Ref. 600EP) onto the end of the glazing bar to give a neat finish (Fig. 9).

**Step 12:** Accurately cut the aluminium U profile (Ref. 253/255) to the appropriate length and fix over the anti-dust tape at the eaves end of the sheet between the end plates. If you wish a small bead of silicone sealant can be applied to the upper side of the sheet along the line where it meets the U profile (Fig. 10). Use only silicone sealant that is compatible with multiwall polycarbonate.



**Fig. 10**

**Step 13:** Final dressing of the Butyl Flashing, see front cover top left inset picture (Ref. 200/10).