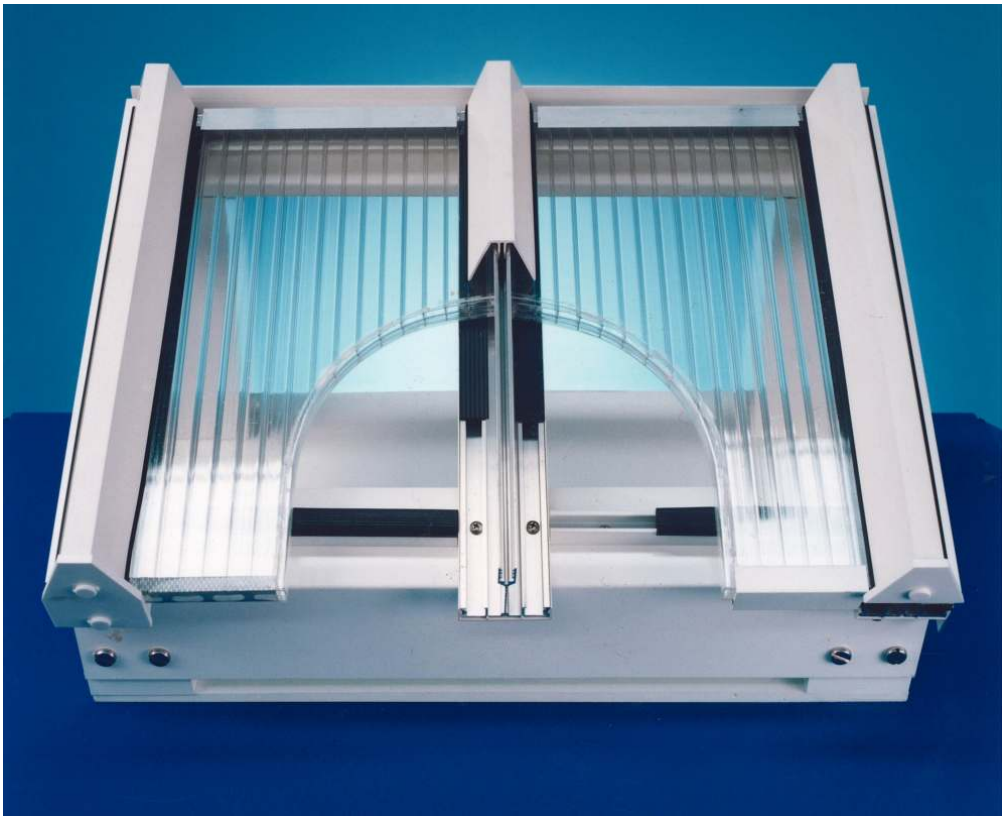
How to install multiwall polycarbonate glazing using the P600 Snap-Fit Structural Glazing Bar System



Tools you will need to construct your roof:

- Tape measure
- Screwdriver
- Spirit level
- Hacksaw
- Drill
- Hammer

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System Description

The P0 system is designed for installing multiwall polycarbonate glazing and will span up to 3000mm unsupported. It consists of an aluminium base bar and a PVCu snap-fit cap that clamps the multiwall glazing firmly and securely in place. There is a wide range of complementary items, fixing accessories and matching profiles. The 600 system is supplied complete with a PVCu thermal underclad and is available in white only.

Glazing with Glass

The P600 system is suitable for use with multiwall polycarbonate only. Neither single panes of glass or double glazed units can be used with the P600 system.

Design Detail

Multiwall polycarbonate is normally used on a roof with a gentle slope, which will allow rainwater to drain into guttering. We recommend the minimum slope should be 5°. The P600 system accommodates both 16mm 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 (Fig.1). Sheet widths should be reduced by 3-5mm to allow for expansion. For example, if you are installing 16mm sheet and your glazing bars are 980mm apart (centre to centre), use a 980mm wide sheet (Fig.2).

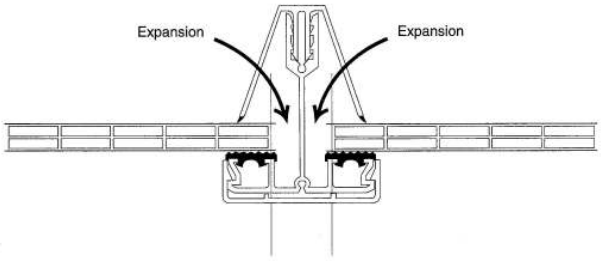


Fig.1

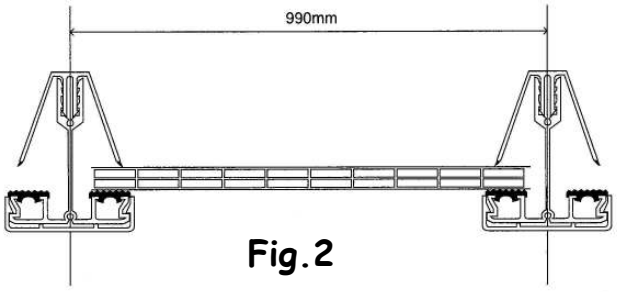


Fig.2

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

Sheet Thickness	Glazing Bar Centres	Spans Unsupported
16mm	1000mm	3000mm
25mm	1250mm	3000mm

Span Requirements

For applications using multiwall polycarbonate where a shorter span is required, we would recommend using a lighter glazing system, please get in touch for information. If a 4m span is required, the base bar can be fitted across purlins or rafters. The base bar must be fitted at the eaves, the ridge and to any purlin. If fitting to rafters, the base bar should be secured to the rafter every 300mm.

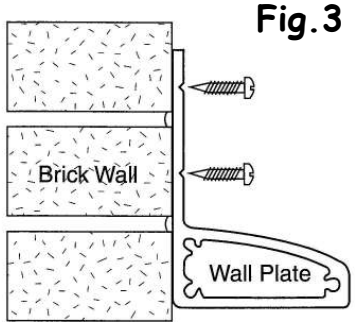


Fig.3

Step 1: Fit the aluminium wall plate (Ref. 290). The wall plate can accommodate all our structural bar systems at angles ranging from 5° to 25° (Fig.3). For a neat finish fix an end plate to each end of the wall plate.

Step 2: Fit the aluminium eaves beam (Ref. 291). The eaves beam can accommodate all our structural bar systems at angles ranging from 5° to 25°. For a neat finish fix an end plate to each end of the eaves beam.

Step 3: Screw the aluminium base bar to the eaves beam and wall plate and to any purlins if they are being used, remembering to start and finish the roof with a base bar (Fig.4).

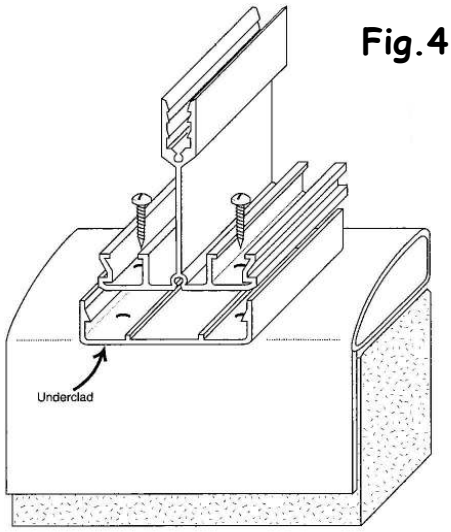


Fig.4

Step 4: Fit the eaves filler (ref. P285F), if used, at the eaves of the structure. This fills the gap between the underside of the sheet and the top of the support structure (Fig.4A). If other materials are being used as a wall plate and/or eaves beam, please use barrier tape to avoid electrolyte corrosion between the P600 glazing bar and the wall plate/eaves beam.

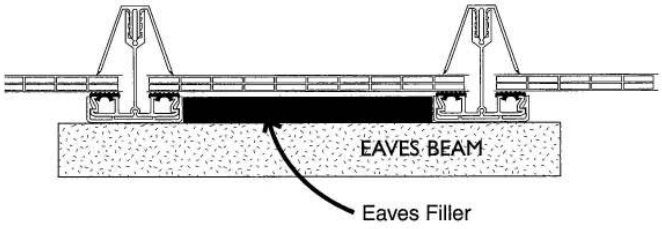


Fig.4A

Step 5: Cut the glazing bar cap to the required length. The gasket for the P600 glazing bar cap is manufactured as a co-extrusion of the cap.

Step 6: Cut to size sheet is supplied blown free of dust and taped, ready to fit. If cutting sheet on site, you must ensure the flutes of the polycarbonate are free of any dust or swarf. This is done by blowing air through the flutes and sealing the ridge end of the sheet with blanking tape (PBT16/25, silver in colour). Seal the eaves (gutter) end of the sheet with anti-dust breather tape (Ref. FT16/25, grey in colour). This process helps prevent dust entry whilst allowing condensation drainage (Fig.5).

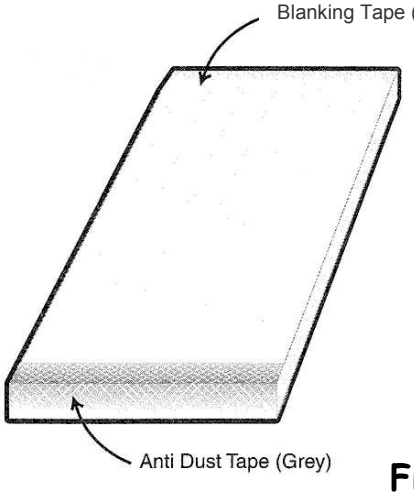


Fig.5

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 7: Fit U profile (Ref. 253/254/255) 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). Use a spirit level to ensure that the sheet is level.

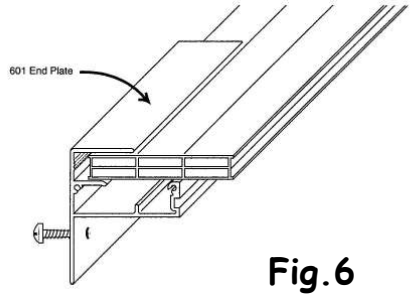
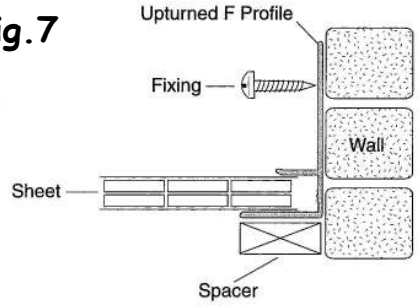


Fig.6

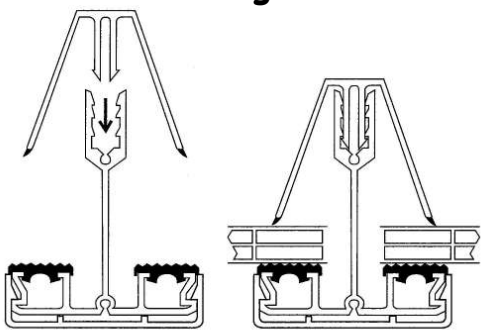
Please note some polycarbonates are UV coated on one side only. The sheet should have a protective film on both sides but only one side is printed. This is the side that should face outwards towards the sun. Remove the masking film from both sides of the sheet. Do not cut with a sharp knife in case you damage the sheet.

Fig.7



Step 8: If fixing a sheet of multiwall polycarbonate to a side wall, then use an upturned F profile (ref. 223/4/5) with a suitable spacer (Fig.7). Seal with silicone along the top edge and flash over.

Fig.8



Step 9: Place an adjoining panel into position with top U profile fitted. The PVCu cap is a snap-fit pressure cap. Push fix the cap into the aluminium base bar (Fig.8). Repeat this process for the remaining panels. On the end panel repeat Step 7 or 8 to finish off.

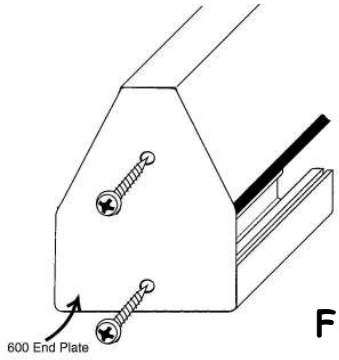


Fig.9

Step 10: Screw the polycarbonate end plate onto the end of the each bar

Step 11: Accurately cut the U profile to the appropriate length and fix over the anti-dust tape at the eaves end of the sheet between the glazing bars. A bead of silicone sealant can be applied to the upper side of the sheet along the line where it meets the U profile. Only use silicone sealant that is compatible with polycarbonate (Fig.10).

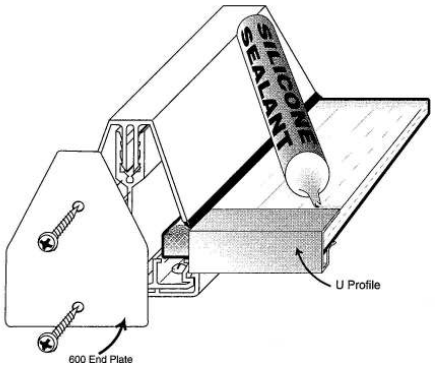


Fig.10

Step 12: Finally dress down the Butyl Flashing (ref. 200/20).

Shaped Roofs

The P00 system is NOT suitable for roofs where a hip is required.

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