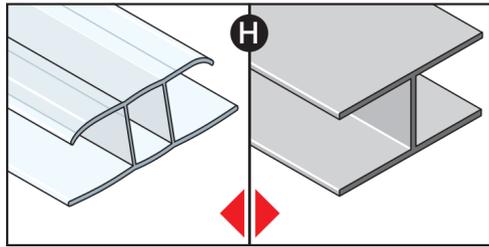


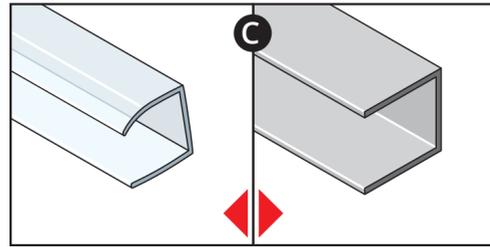
# How to build a lightweight roof from PolyCarbonate Sheets



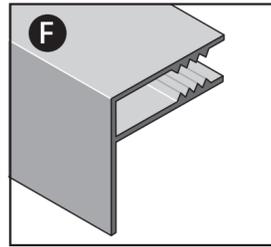
## What you'll need



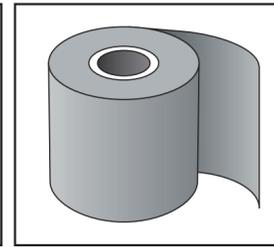
**H-Profile (clear or aluminium)**  
Connects two polycarbonate sheets 'side by side'. (Apply to the long side).



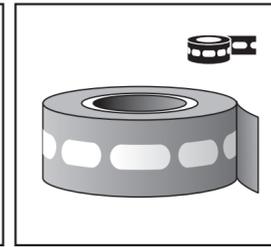
**C-Profile (clear or aluminium)**  
Prevents dust, water or insects from entering the polycarbonate sheets. (Apply to the narrow side).



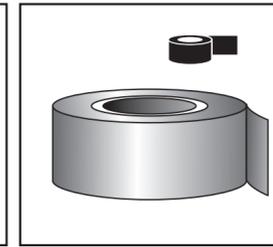
**F-Profile (aluminium)**  
Secures the edge of a sheet to the exterior rafter.



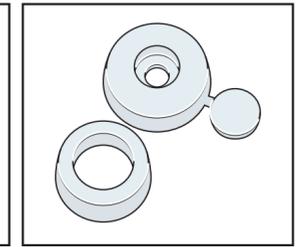
**Flashing Tape**



**Breather Tape**  
Use on bottom edge of polycarbonate sheet.



**Aluminium Sealing Tape**  
Use on top edge of polycarbonate sheet.



**Fixing Buttons**  
Length of screw dependent on frame/sheet thickness.

## Step by step instructions

**Step 1**  
Peel back some of the protective film on both sides of the polycarbonate, revealing about 25mm of the sheet edge at the top and bottom. Do not completely remove the films yet; they protect the polycarbonate surface from damage and indicate the side designed to face outward.

**Step 2**  
Clean any dirt or residue from inside the flutes. Brush with a soft cloth, blow them out with compressed air, or insert a vacuum cleaner tool to suck the matter away.

**Step 3**  
Apply the breather tape to the bottom of the sheet, folding it over the edge and sealing to the polycarbonate sides. This seals the polycarbonate interior, allowing moisture to exit but blocking debris from getting in. Apply aluminium sealing tape to the top of the sheet, folding it over the edges and sealing. This tape is impermeable to water and seals the polycarbonate from moisture and debris.

**Step 4**  
If installing against a wall, run flashing tape along the wall with a 90-degree fold to create an edge or an 'L' shape. Repeat this where the new roof meets any wall. Under the flashing tape use the F profile upside down to secure to the wall and screw the 'tail' of the F to the wall using an appropriate screw for the substrate. Slide the first sheet into the F and if joining to another sheet, slide the H profile onto the other side. **DO NOT** fasten the H profile to the frame. Slide the next sheet into the other side of the H and continue to build your roof.

**Step 5**  
Once you have finished and reached the end attach the final F profile the right way up to seal the end and screw into the wooden frame. If you are joining this to a wall then repeat step 4.

**Step 6**  
Secure the sheets using wood screws (if the frame is wooden) and fixing buttons. Follow the instructions on the fixing buttons for installation but recommended distance between each button would be 200mm around the perimeter and 400mm across the sheets into the timber frame below. Care must be taken to ensure that enough screws are used to control 'wind uplift' in exposed areas. Use a larger drill bit to create a slightly oversized hole, which allows expansion and contraction around the screw later. Avoid inserting screws closer than 40mm from the edges.

**Step 7**  
Apply the capping profile to the ends 'C' to the tops and bottoms of each polycarbonate sheet. The C profile can be opened up to cover the H profile if you prefer to finish the edge in one piece. Use Silicone Sealer over the screw heads to encourage a watertight installation. Remove the film covering the polycarbonate twin wall sheet when construction is complete.

