

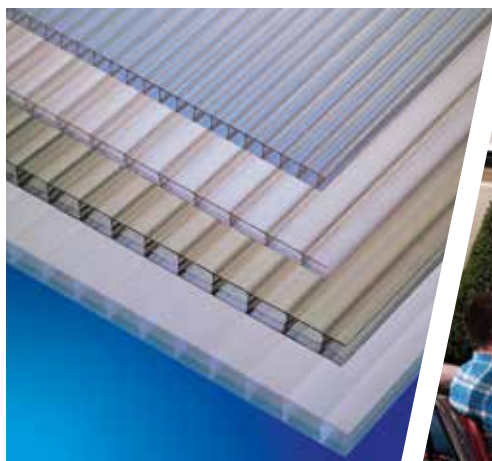


# Corotherm

Polycarbonate Insulating Roofing Sheet

## Multiwall insulating Roofing Sheet

### Installation Guide



- Tints available
- UV protected
- Suitable for greenhouses, conservatories, extensions & canopies

Available in a  
range of sheet  
thicknesses

Corotherm multiwall polycarbonate sheet is a lightweight, impact resistant glazing and roofing material.

# Corotherm

Polycarbonate Insulating Roofing Sheet

Watch the installation  
**VIDEO**   
 arielplastics.com



Offering a range of light transmissions and solar controlling tints, Corotherm multiwall polycarbonate roofing sheets are the ideal daylighting choice for a range of projects around the home and garden.

### Used for roofing assemblies with minimum 10° pitch:

- Canopies
- Car ports
- Verandas
- Lean-tos
- Conservatories
- Greenhouses
- Range of sheet thicknesses & sizes
- Choice of tints
- Fire performance information available\*
- Resistant to impact
- Minimum condensation risk
- Limited warranty available\*

\*Speak to our Technical Department

### Energy Efficiency - Relative U-Values\*

Sheet Thickness	Corotherm	Single Glass	Double Glass	Argon Filled Cavity
6mm Twin wall	3.7	5.7	2.65	1.6
10mm Twin wall	3.2	5.6	2.65	1.6
16mm Triple wall	2.4	5.4	2.65	1.6
25mm Seven wall	1.4	-	2.65	1.6

\* A lower U-value indicates increased energy efficiency and thermal insulation

Ideal wherever heat insulation, reduced condensation, or simply a more attractive glazing material is required.



## Glazing Bar Systems

Used with a glazing bar system, Corotherm multiwall polycarbonate roofing sheet can create lean-tos, canopies or carports. Select the appropriate glazing bar system to suit your project. Note, rafter bar glazing systems cannot be used in a purlin supported application.

Wind loading should be considered for any installation. Scan the QR code for Universal Rafter Glazing Bar wind loading data sheet.



Glazing Bar System	System for use with Corotherm Sheet Thicknesses			Maximum Fixing Centres
	10mm	16mm	25mm	
Universal Rafter Glazing Bar Kit	•	•	•	400mm centres*
Standard Rafter Glazing Bar Kit	•	•	-	400mm centres*
Purlin Supported	•	•	-	1,500mm or less#

\*Staggered on alternate sides. #1500mm is also maximum purlin centres.

## Installation of a Lean-To

For a typical lean-to, we recommend using the materials below and following the installation steps on pages 4-7.

The information under Sheet Preparation and Sheet Installation is also relevant for other project installations where Corotherm multiwall polycarbonate sheet is used.



- Corotherm multiwall polycarbonate sheet
- Glazing bar
- Side flashing
- End caps
- Super fixing buttons
- Breather tape
- Aluminium sealing tape
- Flashing tape
- Wood screws
- Silicon lubricant spray
- Low modulus neutral cure silicon sealant

# Glazing Bar Preparation

For a lean-to installation :

1



Begin the project by installing the flashing tape to provide a watertight seal between the wall and roof.



Insert seals, without stretching, on both sides of the bar base. Using silicone lubricant can make installation easier.

## 2A Installing on Rafters (Using rafter glazing bar system)



Pre-drill the glazing bar in preparation for fixing to the rafters - at approximately 400mm centers staggered on alternate sides.

## 2B Installing on Purlins (Using purlin supported glazing bar system)



Screw the bottom half of the glazing bar to every purlin. Ensure the purlin spacing is not greater than 1,500mm.



Screws should be sealed in waterproof silicone sealant, wiping off any surplus after driving the screws.

Use the 'F profile' upside down so that it forms an up stand which can be sealed to the wall with flashing tape.

## Sheet Preparation



Watch the installation  
**VIDEO**   
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3



If you need to size the polycarbonate sheets to suit the structure, Corotherm can be easily cut to size and will not crack or shatter.



When cutting parallel to the flutes a sharp knife can be used but when cutting across the flutes a fine toothed saw is required. For cutting curves use a fine-toothed jigsaw.

4



Set the correctly sized sheet into position allowing a sufficient expansion gap at the top end of the sheet and mark a hole centrally at the lower end of the sheet for a fixing button. This fixing will prevent the sheet from moving once installed.

5



Remove the sheet to the bench to drill where you have marked. Remember all Corotherm sheets must have an expansion allowance of 3mm around all fixings.

6



Any swarf from cutting or drilling should be removed by vacuuming. Next peel back the protective film from all edges of the Corotherm sheet on both sides

7



Fix the sealing tape at the top end of each piece of Corotherm and the perforated breather tape at the bottom making sure tapes are not creased or torn.

## Sheet Installation

8



With the silver sealing tape at the top of the slope and the breather tape at the bottom, push the sheet into position between the glazing bars. Ensure that the printed film is facing upwards. At least one vertical rib of each Corotherm sheet should engage with the glazing bar at each side, again leaving a 3mm expansion gap.

9



With the sheet now in the correct position, secure into place using the Corotherm fixing button in the pre-drilled hole. Flashing tape forms a completely watertight seal at the top of the sheet.

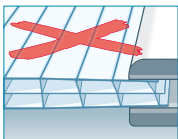


10



Starting at the downslope end, line up the ends of the cap and base and tap home with a rubber mallet until the edge seals have flattened against the sheet.

Continue laying sheets and glazing bar caps in this way.



Over driving the glazing bar cap may cause damage to sheets over time as they expand and contract with temperature changes.

## Fitting the F-Profile



11



Finish the edge of the roof with an F-profile which can be secured to the rafter or barge board with screws.



Fit the final glazing bar cap and complete the run of side flashing.

## Fitting the U-Profiles

12



To protect the breather tape, fit end caps or U-profiles to the end of the sheet.

The U-profile should be cut into sections to fit between rafters. Run a bead of sealant along the top edge of the end cap to prevent water penetration. Fit U-profile into place with the drip detail leading into the gutter. Wipe off any excess sealant.



Once the U-profiles are in place, fit the glazing bar end caps. Finally, remove all protective film.

### Checklist

- Make sure the UV protected side of sheet is facing outwards.
- Allow minimum of 10° roof slope for drainage.
- Rafter glazing bars should be fully supported by rafters.
- Use only low modulus neutral cure sealant and cross-linked butyl flashing tape.
- The lines of the flutes on the sheet must only run from the top to the bottom of the slope. They cannot be run from side to side.
- Sheets cannot be joined top to bottom.
- Glazing bars/F section cannot be joined but must be used as a continuous section.
- When using F section run a suitable low modulus silicone sealant down the inner top face of the enclosure before inserting the sheet.
- Corotherm can be easily and quickly washed with luke warm soapy water and a soft cloth or sponge. Do not use brushes or sharp objects and avoid any abrasives or cleaners of a high alkaline nature.

# Contact Us

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All reasonable care has been taken in the compilation of the information contained within this installation guide. Ariel Plastics reserves the right to amend specifications and prices without prior notice.

All recommendations on the use of our products are made without guarantee as conditions of use are beyond the control of Ariel Plastics. It is the customer's responsibility to ensure that the product is fit for its intended purpose and that the actual conditions of use are suitable.



For the latest information visit

**[arielplastics.com](http://arielplastics.com)**

## 10 Year Warranty

ARIEL PLASTICS LIMITED undertakes to supply a replacement free of charge for any Corotherm Polycarbonate Sheet that proves to have discoloured, in normal weather conditions during a period of 10 years from the date of purchase due to a manufacturing defect. This Warranty is only valid providing the Corotherm has been fixed in accordance with the manufacturer's instructions and does not extend to the cost of re-erection or other consequential loss, which claims are expressly excluded.

NOTE: All roofing materials may be prone to damage in areas exposed to particularly high winds or if fitted to structures which enhance the effects of prevailing wind. It is important therefore, that professional advice is taken before erection concerning prevailing winds and the structure planned. This Warranty is offered as an extra benefit and does not affect your statutory rights.