

# Roof Installation Tips

When using polycarbonate glazing sheets the following should be considered:

## Expansion and Contraction of Polycarbonate Glazing Sheets

With changes in temperature sheets can expand or contract approximately 3mm per metre in both directions so allowance must be made for this movement .

All Omega glazing bars allow for this movement; our bar caps can move with the glazing sheet. Each sheet should be screwed down at one end. (Remember to oversize the fixing hole by 3mm) This is normally done at the back wall plate or ridge so that the screws are covered by the flashing. This prevents the sheet creeping down the glazing bar as it contracts and expands.

## Sealing the Sheet Flutes

The air inside the sheet flutes must be allowed to expand, i.e. the sheet must breathe. The top end of the sheet is sealed with self adhesive aluminium tape whilst the bottom (usually the gutter end) is taped with breather anti-dust tape. Taping is essential to prevent the ingress of dirt and insects. A sheet closure extrusion is usually fixed to the bottom of the sheet to protect the breather tape and provide a neat appearance.

### Car Ports - 10mm twin wall polycarbonate sheets

10mm twin wall polycarbonate sheet is normally used for these extensions. Multi wall polycarbonate sheet with its extra thermal insulation is not usually required. Car ports often have low pitch roofs so where wide sheets are to be used it is important that these are fixed/buttoned to the purlins to withstand wind and snow loads. Advice is available from our sales office.



## Conservatories

You may purchase separate components to make up your conservatory roof or specify an Omega bespoke conservatory roof. In either case we recommend the use of 16mm, 25mm or 32mm multi wall polycarbonate sheet which is available in clear, bronze, opal, combined bronze/opal or sheets that deflect solar radiation. 10mm twin wall polycarbonate is not recommended as condensation is likely to be a problem.

## Swimming Pool Covers

Indoor pool areas are usually heated so we recommend the specification of at least 16mm multi wall polycarbonate because of its high thermal insulation value which reduces condensation problems. This will cover any length pitch up to 7 metres although purlins will normally be required to support the rafters. For added strength buttons can also be used to fix to the purlins.

**N.B.** A swimming pool with a high chlorine content will have an extremely corrosive effect on stainless steel, galvanised steel or aluminium: therefore these parts should be inhibited with an etching agent or some other preventative action taken.

Please contact our sales office for advice.



## Polycarbonate Glazing Sheets

The premium quality structured polycarbonate glazing sheets supplied by Omega combine exceptional impact resistance with good workability.

Polycarbonate glazed roofs are light, strong and can have high thermal insulation values. With a choice of clear, bronze, opal, combined bronze/opal, and sheets that deflect solar radiation, it simply makes good sense to use it in place of traditional roofing materials.

Sheets can be sawn, planed, drilled and screwed. With the use of a power-saw or a fine tooth handsaw you can create precise sizes and shapes.

**Please remember we can also cut and prepare sheets to your specific requirements, all we need are dimensions or a drawing of the shape you require.**

## Omega Glazing Bars

The Omega range of glazing bars offers you the choice of four types, so there is always a bar suitable for your particular application. To detail and finish your roof, Omega offer ridge caps, cresting, finials, roof vents and three-way tie-bar assemblies. Also available are sheet closure extrusions, screw buttons, sealant, tapes and self adhesive flashing.

## Conversion Chart

OUR GENERAL LENGTHS		OUR GENERAL WIDTHS	
1.0m	3' 3"	0.70m	2' 3.5"
1.5m	4' 11"	0.90m	2' 11.5"
2.0m	6' 6"	1.05m	3' 5"
2.5m	8' 2"	1.20m	3' 11.25"
3.0m	9' 10"	2.10m	6' 10"
3.5m	11' 6"		
4.0m	13' 1"		
5.0m	16' 5"		
6.0m	19' 8"		
7.0m	23' 0"		

**N.B.** for quick reference and accurate conversion, convert feet and inches to decimals.

e.g. 4' 6" = 4.5

4' 8" = 4.666

4' 9" = 4.75

and divide by 3.28

thus 2' 3" =  $2.25 \div 3.28 = 686\text{mm}$

## Polycarbonate Sheet Specification

Sheet Width:	10mm	16mm	25mm	32mm	35mm
Structure:	2 wall	3 wall	5 wall	7 wall	7 wall
Weight (kg/m <sup>2</sup> ):	1.7	2.7	3.4	3.7	3.9
Light Transmission (%) BS4203:					
clear	88	82	68	64	64
bronze	46	31	15	6	6
opal	58	51	30	33	33
U Value(W/m <sup>2</sup> ):	3.20	2.40	1.60	1.25	1.20
U.V. Protection:	U.V. Protection layer				
Fire Performance:	BS476 part 7 Class1. Building Regulations (1991) Class 0.				
Impact Strength (Nm):	>27	>27	>27	>27	>27

For further specification details, please contact your supplier.



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