



SUNLITE®

**Multiwall Polycarbonate
Roof Sheeting Guide**



MULTI-WALL POLYCARBONATE SHEETING

► FEATURES AND APPLICATIONS

SUNLITE multi-wall polycarbonate sheet is UV protected (co-extrusion) on one side and combines the following features:

- High impact resistance
- 10 Year limited warranty
- Remarkable insulation (see table)
- Excellent light transmission (up to 80%)
- Heat control option
- Wide service temperature range
- (-40°C to +120°C)
- Good fire resistance
- High architectural versatility

► MAIN APPLICATIONS

- Conservatories
- Carports
- Patio canopies
- Industrial skylights
- Greenhouses
- Swimming pool covers
- Covered walk ways
- Illuminated signs
- False ceilings, partitions and cladding.

► PROPERTIES

Flammability

SUNLITE sheets are self extinguishing and comply with the most demanding of international fire resistance standards. Conforms to BS476 Class 1.

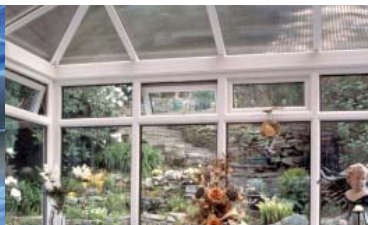
Thermal Insulation

The excellent thermal insulation of SUNLITE Multi-wall results from the air cells inside the hollow structure of the sheet. Multi-wall offers low heat loss (or gain) and therefore higher efficiency. The 'K' value (or U-value) is a number which measures the thermal insulation performance. Lower values for a material mean superior insulation.

► STORAGE & HANDLING

Sheets are supplied with a protective film on both sides. The sheets must be stored under cover with the protective film left in place.

Prior to installation they should not be left exposed to direct sunlight for any length of time, as the sun's heat can be magnified as it passes through the stack causing excessive temperatures and a risk of the film adhering to the sheets. Care must be taken when handling sheets due to sharp edges, it is advisable to use gloves with non-slip palms.



WORKING WITH MULTIWALL POLYCARBONATE

► CUTTING

Polycarbonate sheets can be cut using either a handsaw, jigsaw or band saw. When using a portable or fixed circular saw, protective eyewear and gloves must be worn. It is recommended that a fine toothed high-speed steel saw blade be used. An allowance of 4 mm on all sides should be made for any item positioned around the sheet to allow for thermal movement.

► DRILLING

Before drilling make a small hole with a bradawl to avoid drill travel. Holes should be 4mm larger than the stem of the fixing button to allow for expansion and should be positioned at least 40mm from the edge of the sheet.

► DE-BURRING / CLEANING CHAMBERS

Rough edges can be smoothed with a file or fine sandpaper. To remove swarf from the chambers use a domestic vacuum cleaner or compressed air jet.

► REMOVING PROTECTIVE FILM

When marking, drilling and cutting has been completed peel back approx. 50mm of film all round both faces. The polythene film should only be fully removed when installation is complete.

► TAPE ENDS OF SHEET

To prevent dirt, dust and insects from getting into the flutes it is advisable to fit an Anti-Dust/Breather Tape to the top & bottom of the sheet. This tape will allow air movement, which will help to dry out any condensation within the flutes.

► RIGHT SIDE UP

The side protected by the printed film is the top side (UV protected), the side covered by plain film is the underside. To ensure

maximum product life expectancy make sure the sheets are not installed upside down.

► PITCH OF ROOF

Whilst the minimum recommended roof pitch is 5 degrees, wherever possible it is advisable to increase the pitch to enhance drainage for rainwater and condensation. Seek professional advice before building your roof as rafter spacings will vary dependant upon the thickness of the sheet used. Please note that the flutes must always run down the slope and not across.

► THERMAL MOVEMENT

Polycarbonate is subject to expansion and contraction both literally and longitudinally. It is therefore essential that adequate clearances are allowed when fitting glazing bars. A gap of 3mm must be allowed between the sheet edges and the fixing leg of the glazing bar.

► CLEANING

Polycarbonate should be cleaned with a soft sponge or cloth using warm water and a mild soap or detergent. Do not use abrasives, solvents or cleaners with high alkaline content.

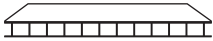
► SAFETY

Never walk on a polycarbonate roof without using planks to spread the load over the roof beams.

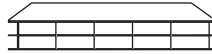
► SUITABLE SEALANT

To allow for expansion and contraction only non hardening silicone sealant should be used. Most low modulus sealants are suitable but there are a few containing chemical agents which react adversely with polycarbonate. Check the instructions.

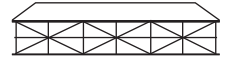
TECHNICAL DATA



4, 6 & 10mm Twin wall



16mm Triple wall



16, 25 & 35mm X-Lite

STRUCTURE	THICKNESS	WEIGHT Kg/m ²	LIGHT TRANSMISSION					K VALUE
			Clear	Bronze	Opal	Solar Guard		
						Bronze on Opal	Solar Control	
Twin Wall	4mm	0.8	82%					3.8
Twin Wall	6mm	1.3	80%					3.5
Twin Wall	10mm	1.7	79%					3.0
Triple Wall	16mm	2.7	76%	35%	48%			2.3
X-Lite	16mm	2.6	60%	25%	30%			2.1
X-Lite	25mm	3.4	60%	25%	15%	10%	5%	1.7
X-Lite	35mm	3.9	57%	20%	15%			1.5

SUNLITE Polycarbonate is available in the following lengths and widths:

10, 16 & 25mm Gauges

LENGTHS	WIDTHS
1.5m	600mm
2.0m	700mm
2.5m	900mm
3.0m	980mm
3.5m	1050mm
4.0m	1200mm
4.5m	1400mm
5.0m	2100mm
7.0m	

35mm Gauges

LENGTHS	WIDTHS
2.5m	700mm
3.0m	900mm
3.5m	1050mm
4.0m	1200mm
4.5m	2100mm
7.0m	

25mm Solar Guard

LENGTHS	WIDTHS
3.0m	700mm
3.5m	
4.0m	1050mm
4.5m	
7.0m	2100mm

4 & 6mm Polycarbonate

LENGTHS	WIDTHS
1.22m	610mm
2.44m	1220mm

INSTALLATIONS USING SHEET WIDTHS IN EXCESS OF 1200MM ARE NOT RECOMMENDED!

Please ask your supplier for the manufacturers recommended maximum unsupported widths and lengths as purlins (cross beams) will be necessary on many installations.

POLYPLASTICS
SHEET SALES LTD.

www.polyplastics.co.uk
www.palram.com