

enjoy the outdoors with

# LASERLITE<sup>®</sup>

POLYCARBONATE

Lifetime  
Platinum  
WARRANTY

advanced  
weatherguard<sup>™</sup>

TECHNOLOGY

comfort<sup>™</sup>  
cool

TECHNOLOGY



[alsynite.co.nz](http://alsynite.co.nz)





**LASERLITE**<sup>®</sup>  
POLYCARBONATE

the **best choice** for  
New Zealand's **tough weather conditions**

Laserlite<sup>®</sup> is uniquely crafted to be able to **withstand New Zealand's tough weather conditions**. There are two tiers of Laserlite<sup>®</sup> Polycarbonate available to suit your needs - Laserlite<sup>®</sup> 2000 and the more premium Laserlite<sup>®</sup> 3000 - both are excellent choices and both come with Lifetime Platinum Warranty.

Laserlite<sup>®</sup> 2000 and Laserlite<sup>®</sup> 3000 feature Advanced Weatherguard™ technology, a special protective material that is warranted to:

- Extend the life of the sheet by up to **50%\***
- Maintain sheet colour and clarity up to **50% longer\***
- Provide 99.9% protection from UV rays up to **50% longer\***
- Resist **25% larger hailstones\***

With unrivalled technology and superior performance, it's clear why Laserlite<sup>®</sup> is part of New Zealand's outdoor lifestyle.

If you are looking for something that will keep you cool throughout the Summer, Laserlite<sup>®</sup> 3000 has you covered with Comfort Cool™ technology - special properties in the sheet help **reflect the warming effect on the suns rays** to offer **reduced glare for ultimate comfort** and up to **50% better heat reduction\***.

### Comfort level under Laserlite<sup>®</sup>

1000	WARMER	● clear	● bronze tint	● diffused opal	● grey tint	● opal	COOLER
2000		● clear	● bronze tint		● grey tint	● opal	
3000						● frost	

### Light level under Laserlite<sup>®</sup>

1000	MORE LIGHT	● clear	● diffused opal	● opal	● bronze tint	● grey tint	LESS LIGHT
2000		● clear		● opal	● bronze tint	● grey tint	
3000				● frost		● platinum	

## LASERLITE<sup>®</sup>

### 1000

### Our Cost-effective Roofing Solution

Profiled translucent roofing product designed for weather protection and enhancement of your outdoor living area.

- Manufactured to AU and NZ standards
- Provides protection from sun, rain and wind
- Applications: use in a variety of roofing, cladding and fencing situations.
- Provides 99.9% protection from UV rays



#### available colours



Light Transmission %	93%	49%	38%	19%	56%
Heat Reduction % ‡	0%	52%	33%	47%	46%

#### SHEET LENGTHS AVAILABLE

1.8m, 2.1m, 2.4m, 2.7m, 3.0m, 3.6m, 4.2m, 4.8m, 5.4m, 6.0m, 7.2m

#### SHEET WIDTH

Corrugated - 840mm, Greca - 810mm, 5-Rib - 830mm

#### COVER WIDTH

Corrugated 755mm, Greca 760mm, 5-rib 762mm

\*\*NB: Opal and Diffused Opal not available in 5 Rib profile.



## LASERLITE<sup>®</sup>

### 2000

### Our Classic – Performance & Reliability

The classic, high-performance Laserlite<sup>®</sup> range

- Manufactured to AU and NZ standards
- Extend the life of the sheet by up to 50%#
- Maintain sheet colour and clarity up to 50% longer#
- Provide 99.9% protection from UV rays up to 50% longer#
- Resist 25% larger hailstones#

# As compared to other profiled polycarbonate roofing products



#### available colours



Light Transmission %	93%	49%	38%	19%
Heat Reduction % ‡	0%	52%	33%	47%

#### SHEET LENGTHS AVAILABLE

1.8m, 2.1m, 2.4m, 2.7m, 3.0m, 3.6m, 4.2m, 4.8m, 5.4m, 6.0m, 7.2m

#### SHEET WIDTH

Corrugated - 840mm, Greca - 810mm, 5-Rib - 830mm

#### COVER WIDTH

Corrugated 755mm, Greca 760mm, 5-rib 762mm



Choice in outdoor living area protection.  
Options to suit your lifestyle.

# LASERLITE<sup>®</sup> 3000

## Our Premium – Ultimate Comfort

Technologically advanced heat reflective range for the ultimate outdoor lifestyle experience.

- Manufactured to AU and NZ standards
- Up to 50% better heat reduction than standard profiled polycarbonate sheet<sup>#</sup>
- Reduced glare for ultimate comfort

<sup>#</sup> As compared to other profiled polycarbonate roofing products



### available colours



Light Transmission %	47%	18%
Heat Reduction % <sup>‡</sup>	63%	69%

### SHEET LENGTHS AVAILABLE

1.8m, 2.1m, 2.4m, 2.7m, 3.0m, 3.6m, 4.2m, 4.8m, 5.4m, 7.2m

### SHEET WIDTH

Corrugated - 840mm, Greca - 810mm

### COVER WIDTH

Corrugated 755mm, Greca 760mm

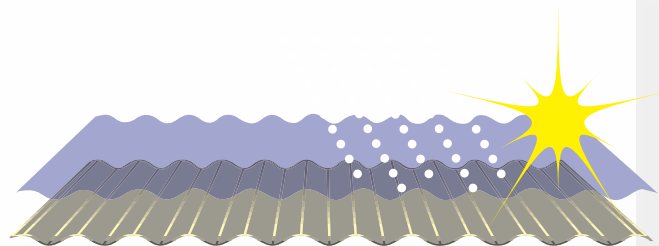
\*NB: Platinum is only available in Greca profile.

<sup>‡</sup>Based on the warming effect of the sun's rays through a sheet vs 3mm float glass (300-2500nm)



## THE TECHNOLOGY & how it works

### Advanced Weatherguard<sup>™</sup>

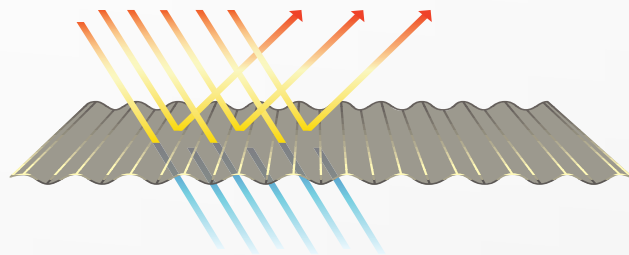


UV rays, wind, hail and rain have the potential to make polycarbonate resins brittle and lose colour over time.

### Advanced Weatherguard<sup>™</sup>

protects the sheet and protects from harmful UV radiation

### Comfort Cool<sup>™</sup>

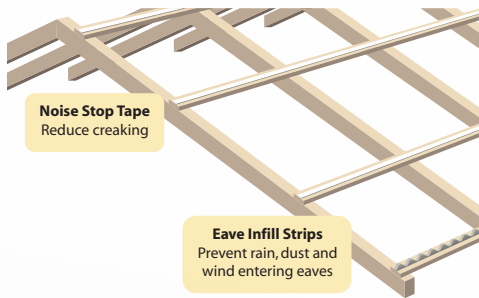


Infra red light emitted by the sun passes through polycarbonate sheet making it warm underneath. **Comfort Cool<sup>™</sup>** Technology reflects the heat away whilst letting visible light through with less glare.

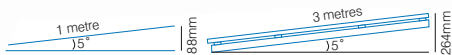


# Installation Guide

## Step 1 Purlins & Accessories



1. Ensure that your roof pitch is at least 5°, i.e. 88mm rise per lineal metre. This will ensure adequate water run off.



2. Allow for ventilation, particularly at the highest point, to minimise heat build-up and provide air circulation. Good ventilation will also minimise condensation in cold weather.

3. For roofing, purlin/batten spacings should be no more than those shown in *Table X - Maximum Purlin Spacings*.

Table X - Maximum Purlin Spacings

Profile	End Span	Mid Span
Corrugated	800mm	1000mm
Greca	900mm	1200mm
5 Rib	900mm	1200mm

For curved structures, the maximum purlin spacing should be 750mm.

Sheet Length (mm)	Depth of Curve (mm)	
	Corrugated / Greca	5-Rib
6000	800	600
4500	400	300
3600	200	200

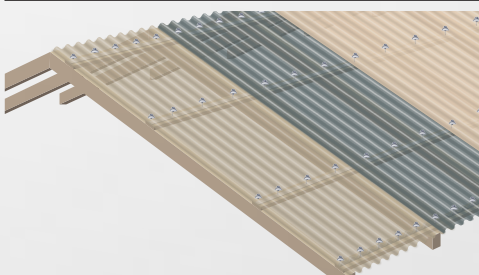
Use Laserlite® Noise Stop Tape on all battens, purlins or noggings to minimise the noises associated with expansion and contraction.

4. Lay Laserlite® Noise Stop Tape to avoid creaking.

5. Lay Laserlite® Eave Infill Strips at eaves to avoid rain, dust and wind entering the eaves.

6. For installations under a gutter, fit metal back channel with Back Channel Infill Strips prior to laying sheet

## Step 2 Sheet & Fixings



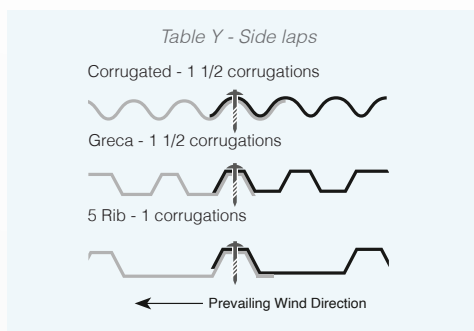
## Step 2 Continued...

1. Ensure that the UV surface protected side faces the sun. This is the side of the label and the inkjet marking. When installed as a wall or fence it is recommended that the UV protected side is facing the most sun. The life of the sheet may be shortened and discolouration may occur due to the unprotected side being exposed to UV radiation.

2. The sheet can be easily cut with a pair of shears, a fine-toothed handsaw or a circular saw with a cut-off blade suitable for plastic.

3. For roof laying, start with the lower sheets first, keeping side laps away from prevailing wind. Allow an overhang of 50mm. Temperature changes will cause expansion and contraction, so make allowances for thermal movement. Resistance to movement can cause buckling.

4. Side laps will differ by profile. Install as shown below:



5. To ensure maximum performance of the sheet, and to avoid buckling, it is necessary to oversize the holes and centre the fixings. It is recommended that Laserlite® Polycarbonate fixings are used. They come complete with their own hole saw that cuts an expansion hole as you drill. The screw is centred every time and the cutter holds the plug of material removed. If using a fixing without a hole cutter, pre-drilling is required. Use a 10mm drill for sheets up to 4.2m long and a 12mm drill for sheets longer than 4.2m. Fix the sheet through the centre of the pre-drilled holes, perpendicular to the purlins/battens. A (5/16") Drill hex driver bit should be used. Only tighten the fixings enough to prevent rattling. Over tightening may cause distortion and undue stress with possible failure resulting. Use only Laserlite® branded fixings as these are designed to be compatible with Laserlite® Polycarbonate Roofing. Any failure of the sheet due to fixings other than Laserlite® branded will void the Laserlite® warranty.

In normal conditions, use the fixing spacings shown in *Table Z - Fixing spacings*.

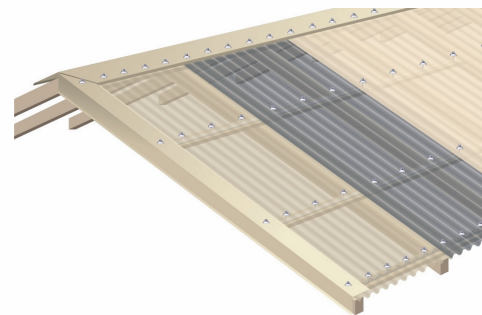
As a guide, you will need approximately 7 fixings per lineal metre. This depends on your purlin spacings and wind conditions. In high wind areas fix Corrugated and Greca on every second corrugation on each purlin/batten. It is suggested that barge capping be used. Fix the sheet through the valleys for walls with Laserlite® Polycarbonate Fixings. Using Laserlite® Polycarbonate fixings eliminates requirement for pre-drilling.

6. End overlaps should be 150mm for steep pitch or 200mm for shallow pitch.

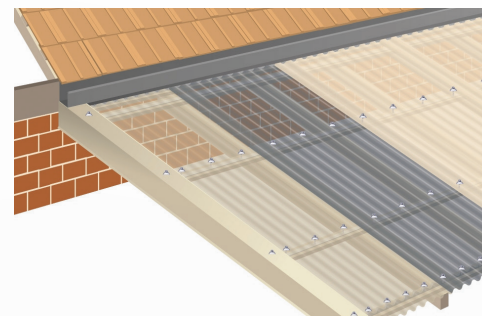
Table Z - Fixing Spacing

Profile	End Purlin	Mid Purlins
Corrugated	every 2nd crest	every 3rd crest
Greca	every 2nd crest	every 3rd crest
5 Rib	every crest	every crest

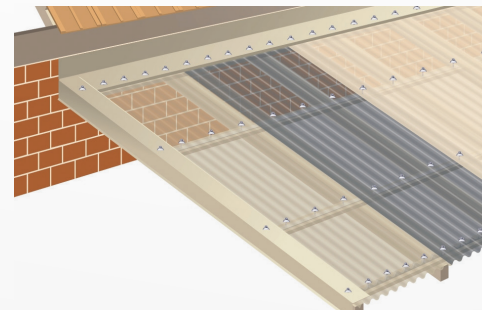
## Step 3 Capping & Flashings For various Installations



APEX ROOF - Fit metal barge capping\* to the edge of sheet and metal ridge capping to the apex.



UNDER A GUTTER - Fit back channel flashing with foam infill strips under gutter prior to laying sheets and metal barge capping to edge of sheet.



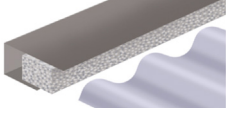
AGAINST A WALL/FASCIA - Fit metal barge capping to edge of sheet and metal apron flashing at the wall or fascia.

## Safety Recommendations

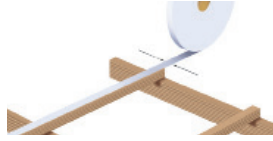
- Always exercise extreme care when walking on a roof.
- Never walk on or apply your load directly to sheeting.
- In particular consider all safety requirements when working at heights above 2m.
- For safety reasons we recommend the use of safety mesh for installations above 3m.
- Use appropriate personal protective equipment (PPE) such as safety footwear, glasses and gloves.
- All safety practices must comply with the applicable local building and/or work cover code(s).
- We do not recommend the collection of drinking water from any roof without appropriate precautions and filtration. Check with your local water authority for further advice.

**CAUTION:** To maximise the life cycle of your Laserlite® roofing, Laserlite® recommends avoiding exposure of polycarbonate sheeting to excess heat from patio heaters. Maintain a distance of 1 metre minimum between the sheets and the heater with adequate ventilation at all times and temperature to below 90°C beneath the sheeting. If the temperature rises above 90°C, remove the heater immediately.

## FOAMS AND TAPES:

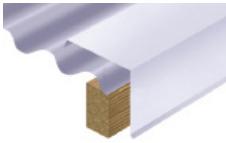


Back Channel Infill Strip

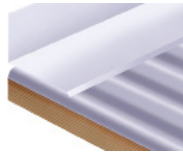


Noise Stop Tape

## FLASHINGS:



- Range of Polycarbonate Flashings
- Laserlite Lap Connectors



## FIXINGS:

We recommend using Laserlite<sup>®</sup> Polycarbonate Fixings to fix your Laserlite<sup>®</sup> polycarbonate roofing. Laserlite<sup>®</sup> Polycarbonate Fixings have a built in cutting device that will pre-drill an expansion hole while you drill in the fastener. The expansion hole is very important because it allows the sheet to expand and contract when the temperature changes. Can be used up to and including high wind zones. Available in metal and timber. (please see [alsynite.co.nz](http://alsynite.co.nz) for installation instructions).

# LASERLITE<sup>®</sup>

POLYCARBONATE FIXINGS

**One Step. One Tool.**  
**Easy Installation.**  
**Professional Finish.**



## Handling, Storage & Cleaning

- » Store sheets on a flat surface in a well protected and shaded area, out of direct sunlight. Stacked sheets stored in the sun will cause heat build-up, and possibly distortion, even if covered.
- » Prevent Moisture getting between stored sheets as this may cause whitening or discolouration.
- » Avoid contact with chemicals, paints, solvents and sealants that are incompatible with Polycarbonate.
- » Clean regularly with warm, soapy water and a soft sponge or soft brush. Rinse thoroughly.
- » Do **NOT** remove sheets to clean once installed.
- » Laserlite<sup>®</sup> is affected by methylated spirits, benzene, petrol, ketones, acetone, phenols, chlorinated and aromatic hydrocarbons, petroleum-based paints, abrasive cleaners and solvents. Refer to website for more details.



Protecting the environment, Laserlite<sup>®</sup> is fully recyclable and no waste is created in the production process. Laserlite<sup>®</sup> is also heavy metal free. See website for further details.