

# AMPELite



Solasafe Polycarbonate.  
Your UV Safe  
Window to the Sky.



# Solasafe Lifetime Warranty

Provided by Ampelite Australia Pty Ltd an Australian owned and operated company.

The original purchaser is entitled to the following benefits in addition to any consumer rights conveyed by Government regulations and the Trade Practices Act.

In the event of any claim under this Warranty, the liability of Ampelite Australia Pty Ltd (hereinafter titled 'Ampelite') is limited to the replacement or pro-rata replacement of the faulty sheet(s). Such faulty material must be returned freight pre-paid by the purchaser, to the nearest Ampelite state office, together with proof of purchase documents. The product is intended for use in domestic building applications and the warranty does not apply to industrial use. Costs associated with the removal and refixing of sheets, or any loss, or consequential damage of any kind are not covered by this Warranty. Sheet failure due to incorrect installation, including the use of silicone and sealants other than a co-polymer sealant specifically formulated to be compatible with polycarbonate, or fair wear and tear/abrasion, are not covered by this Warranty.

## Ampelite Warrant 'Solasafe' polycarbonate sheeting for LIFETIME against:

- Excessive discolouration of clear sheets** subject to these conditions:
  - The test method employed to assess discolouration will be that specified under Determination of Colourfastness AS/NZS4257.7.
  - Discolouration caused by atmospheric deposits or dirt, chemical reaction, abrasion and like events, are not covered by this warranty.
- Light transmission loss of clear and coloured sheets** subject to these conditions:
  - The loss of diffused light transmission from that of the sheet when new, shall not exceed more than 1% per year for lifetime from the date of purchase.
  - The test method employed to assess any loss of light transmission will be that specified in AS/NZS4257.4.
  - Loss of light transmission caused by atmospheric deposits or dirt, chemical reaction abrasion and like events, are not covered by this warranty.
  - The product is intended for domestic use only and must be installed and cleaned in accordance with Ampelite's recommendations.

## Ampelite Warrant 'Solasafe' polycarbonate sheeting for a period of 10 years against HAIL DAMAGE:

Fracturing of sheet by hailstones up to 19 mm diam. accompanied by winds up to 75 km/hr. Damage caused by the impact of objects other than hail is excluded from this Warranty.

### CHEMICALS AND POLYCARBONATE

Polycarbonate sheeting is affected by petrol and petroleum based products (including paint), methylated spirits, ketones, benzene, acetone, hydrocarbons, phenols, abrasive cleaners, harsh cleaners and solvent cleaners.

It is less affected or unaffected by kerosene, mineral oils, alcohols, glycols, vegetable fats, animal fats, acids, glycol, non abrasive cleaners, mild detergents and soft soap.

### INSTALLATION STANDARD

Installation of Ampelite Solasafe Sheeting shall be in accordance with the Ampelite fixing guide in this brochure, together with AS 1562.3: 2006, Design and installation of sheet roof and wall cladding -Part 3: Plastic.

### DISCLAIMER

While the contents of this brochure are believed to be correct at the time of printing, revisions to the colour range, sheet lengths available, procedures or data may be made without notice. All recommendations are made in good faith but without warranty.

The colour representations of Solasafe polycarbonate in this brochure are as accurate as the nature of the material and commercial photographic and printing processes allow. It is probable that colour tints may vary between those shown in this brochure, sample pieces and the delivered product. Where colour is critical we recommend that you inspect up to date samples of the actual material to be used at your retail outlet prior to purchase. Very minor variations in sheet colour may occur from time to time but are virtually un-detectable in situ; blue or grey skies and intense sunlight may cause a variation in the apparent colour from day to day.

# Products for commercial, premium domestic, and Greenhouse applications



**Lexan\* Thermoclear\*** multiwall sheet is a high quality, low maintenance glazing material that is built to last. Manufactured from Lexan\* polycarbonate resin, it delivers high impact strength, an excellent balance of low weight, and stiffness combined with glass clear transparency.

From industrial and commercial buildings, offices, sports stadiums, swimming pools, high end residential applications to conservatories, growing sheds and greenhouses, this versatile range of materials helps to deliver state-of-the-art, lightweight glazing.

Ampelite stock 10 mm and 16 mm gauge twinwall sheets which are widely used. In applications where superior stiffness is required, we can supply X-structures up to 32 mm thick.

## Typical applications

- Covered walkways
- Pergolas
- Shopping Centres
- Greenhouses
- Swimming Pool Enclosures
- Industrial Glazing
- Sports Complexes
- Screening/Partitioning

SABIC Innovative Plastics™

سابك  
sabic

Authorized Distributor

**Lexan\*** Tough Virtually Unbreakable  
Polycarbonate Sheet

\*Trademark of Sabic Innovative Plastics IP BV

Ampelite is wholly Australian owned. Profits remain in Australia and taxes paid benefit our community.



Ampelite Australia Pty Ltd  
ABN 91 487 122 629

Plumbing Merchants Association  
supplier of the year for 2006/7, 2007/8



**VIC & TAS:** Tel 03 9794 0977. Fax 03 9794 0710. **NSW: & ACT:** Tel 02 9625 7200. Fax 02 9625 7211.

**QLD:** Tel 07 3808 6211. Fax 07 3808 4799. **NTH QLD:** Tel 07 4774 5007. Fax 07 4774 7898

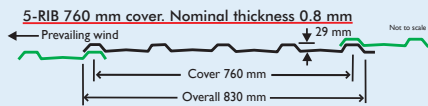
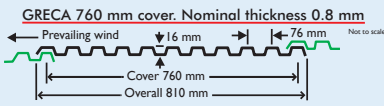
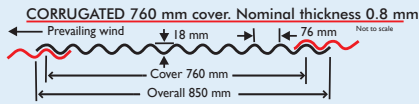
**SA & NT:** Tel 08 8260 7391. Fax 08 8260 7397. **WA:** Tel 08 9302 6833. Fax 08 9302 6855.

**NZ:** Tel 09 634 5366. Fax 09 622 2060.

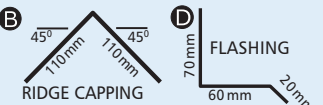
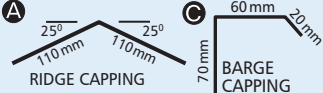
[www.ampelite.com.au](http://www.ampelite.com.au)



## PROFILES AND FLASHINGS

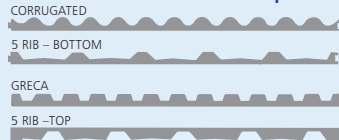


### POLYCARBONATE

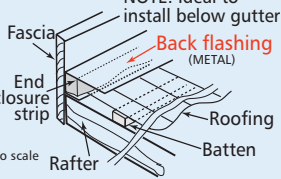


Lengths:  
3.6 m, 4.2 m, 4.8 m, 6.0 m. Drawings not to scale

### End Closure Foam Strip

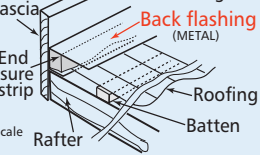


### METAL



**DIMENSIONS**  
A. All profiles 45 mm.  
B. Corr. & Greca 20 mm,  
5 Rib 30 mm.  
C. All profiles 25 mm.  
Available in 2.4 metre lengths only

**NOTE:** Ideal to install below gutter



### Anti-noise Tape

We recommend the use of self adhesive foam tape on battens to reduce noise created by expansion and contraction of the sheeting.

## SPACING – PURLINS AND RAFTERS

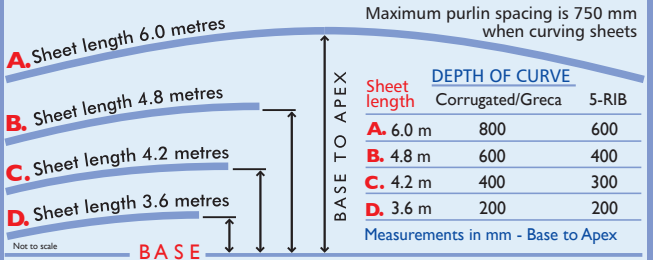
Maximum sheet spans	END	MID
Corrugated	800	900
Greca	900	900
5 Rib	900	1000

\*Nominal thickness: All profiles 0.8 mm

When rafter spacing coincides with sheet overlaps the roof appears join free. Sheet cover is 760 mm.

Note: We recommend the use of Anti-Noise self adhesive Foam Tape along Battens or Purlins to minimise friction noise generated by expansion & contraction of sheet.

## MAXIMUM RECOMMENDED CURVES



## STORAGE & HANDLING

Sheets should be stored in cool, sheltered surroundings. Do not place heavy materials on the sheets, or drag stacks to a new location. Always support sheets when moving. Sheeting exposed to sun and rain, or stored under tarps etc, can be damaged either by distortion or condensation between the sheets. Damage caused by incorrect storage or handling is not covered by the warranty.

## ABRIDGED TECHNICAL SPECIFICATIONS

Ampelite supplies its polycarbonate products to Australian Standard AS4256.5: 1994, Plastic roof and wall cladding materials -Part 5: Polycarbonate.

Solasafe is classed as a fire retardant material under AS/NZS1530.3:1999 Methods for fire tests on building materials, components and structures - Part 3: Simultaneous determination of ignitability flame propagation, heat release and smoke release.

Wind loading complies with AS1170.2:1989 SAA Loading Code -Part 2: Wind Loads and AS4040.2:1992 – Method 2: Resistance to wind pressures for non-cyclone regions. Also AS4040.3: 1992 – Method 3 Resistance to wind pressures for cyclone regions.

Light transmission is measured under AS/NZS4257.4:1994 – Method 4: Determination of diffuse light transmission. Full specifications are available from Ampelite state offices.

## Minimum to maximum SHEET LENGTHS

### CORRUGATED

1.8 m to 8.1 m – Clear, Opal, Light Bronze, Grey, Dark Tint, Pearl Ice, Silver Mist.

1.8 m to 6.0 m – Green, Smooth Cream, Mist Green.

### GRECA

1.8 m to 8.1 m – Clear, Light Bronze, Grey, Dark Tint, Pearl Ice, Silver Mist.

1.8 m to 6.0 m – Opal, Smooth Cream.

### 5 RIB

1.8 m to 8.1 m – Clear, Opal, Grey.

1.8 m to 6.0 m – Light Bronze, Dark Tint.

## Standard LENGTHS available

1.8 m, 2.1 m, 2.4 m, 2.7 m, 3.0 m, \*3.3 m, 3.6 m, \*3.9 m, 4.2 m, 4.8 m, 5.4 m, 6.0 m, \*\*8.1 m.

\*3.3 m and/or 3.9 m are only available in some product lines; please check with your supplier or Ampelite in your state.

**\*\*Note:** 8.1 m lengths are only available in the profiles and colours shown in the cream coloured panels above.

## FOLLOW FIXING INSTRUCTIONS

Carefully follow all Ampelite fixing instructions in this brochure. As polycarbonate sheeting expands up to 21.6 mm over eight metres, we do not recommend using sheets above 8.1 m.



**'SOLASAFE'**  
THE NAME SAYS IT ALL



# Installation

Ampelite Australia Pty Ltd recommend that you closely adhere to the installation instructions below. These procedures follow the Australian and New Zealand Standard: Design and Installation of Sheet Roof and Wall cladding, Part 3: Plastic, AS/NZS 1562.3: 2006.

'Solasafe' is ideally suited to domestic applications. It is fixed and flashed on similar principles to steel roofing. Ampelite's fixing procedures are based on normal weather conditions; for extreme climatic conditions enquire at your nearest Ampelite office for their recommendations.

**Note:** Minimum recommended fall for corrugated and greca is 5° this is approximately 83 mm per metre of sheet length. As an example: a 3.6 metre sheet requires a minimum fall of 300 mm. With 5-rib profile, 3° fall is sufficient – over 3.6 metres this is 180 mm. We strongly recommend using 5-rib when the roof pitch is minimal. If insufficient fall is allowed, leakage may occur.

## A simple method to calculate the fall of your roof

### CORRUGATED/GRECA PROFILES

minimum fall 5°



For fall of 5° divide length of sheet by 12.

**EXAMPLE:** a 6 metre sheet divided by 12 = 500 mm fall top to bottom.

### 5 RIB PROFILE

minimum fall 3°



For fall of 3° divide length of sheet by 20.

**EXAMPLE:** a 6 metre sheet divided by 20 = 300 mm fall top to bottom.

## Expansion and contraction, screws and seals.

- To reduce noise caused by friction due to expansion and contraction we recommend using 25 mm x 3 mm white self adhesive Anti-Noise Tape along the top of battens.
- When fixing polycarbonate sheets to the battens or purlins, allowance has to be made when drilling screw holes so that the sheet can move freely as it expands or contracts. Screw holes must have a minimum diameter of 10 mm for sheet lengths up to 4.2 m. Lengths over 4.2 m and up to 8.1 m require 12 mm diameter holes. To fix corrugated and greca profiles use 50 mm x 12g screws. The 5-Rib profile requires 65 mm x 12g screws. All screws must be fitted with 26 mm Ampelite grey domed weather-proof seals. If using other fixings or seals they must be compatible with polycarbonate sheeting e.g. Neoprene or EPDM. Avoid over tightening!

An alternative method of fixing which also speeds up installation, is to use self drilling combination drill/cutter and weather-proof seal assemblies. These fasteners self drill the sheet and create the correct clearance hole in one operation. A very easy, effective, method.

## Sheets have UV protection on one side only

- Please read the labels on the sheet prior to installation and check each sheet label thoroughly to ensure that the UV protected surface faces the correct way. Sheets incorrectly installed will not withstand weathering, and discolouration will result. When used vertically, face the protected side of the sheet in the direction of the most intensive sunlight or exposure to weather.

## Matching other sheeting and sealing

- If new sheeting is to be used with existing polycarbonate please check colour prior to installation as some minor variation may occur.
- When polycarbonate is correctly installed additional sealing is seldom needed. If sealing is required at side or end laps, use a co-polymer sealant specifically formulated to be compatible with polycarbonate.

Incompatible sealants weaken the sheeting and their use voids the Warranty. Refer to Ampelite for the best sealants.

## Spans, end laps and overhangs

- Please refer to the Span Table and do not exceed the measurements shown.

End laps (if required on very long runs) are best placed at battens or purlins. Allow 200 mm for low pitched roofs and 150 mm on steeper falls. Excessive overlap should be avoided.

Overhang at the eave must not exceed 100 mm and be less in high wind areas. In most installations 50 mm is sufficient.

## Side laps

- Laps should face away from the prevailing wind direction.

Corrugated: Overlap 1.5 corrugations.

Greca: Overlap 1 rib (or 2 ribs depending on the degree of exposure or weatherproofing required).

5 Rib: Overlap 1 rib.

## Cutting

Polycarbonate is best cut with sharp snips. Small cuts can be made with strong, sharp scissors. If a power saw is used it should be fitted with a fine toothed blade suitable for cutting plastics or aluminium. Do not use high speed cut-off wheels or similar as they cause melting.

## Condensation and ventilation

- Under single skin roofs and especially in cold weather, some condensation is mostly un-avoidable. Good ventilation will help minimise condensation.

## Cleaning

- Use only a soft brush and soapy water. No abrasives. To prevent possible staining we recommend cleaning whenever bird soil is apparent.

