AMPELITE

LIFE TIME WARRANTY

Solasafe Polycarbonate. Your UV Safe Window to the Sky.

'SOLASAFE'

THE NAME SAYS IT ALL

Enjoy the freedom

'Solasafe' polycarbonate sheeting provides 9
lifestyle, and selecting the best roofing sc
physical properties that can't be matc
three levels of polyca

Level One
'SOLASAFE'

The most widely used Solasafe Polycarbonate sheet.
Seven colours with varying light and heat transmission ratings.

When you want maximum light Solasafe Clear sheeting lets 90% of available light flood your space. Truly, 'your window to the sky'. Integral surface protection prevents UV degradation of the sheet surface and helps prolong its life. It also minimises yellowing of the sheet over its lifetime; see the generous warranty that covers this. The impact strength of polycarbonate is up to 250 times that of tempered glass, strong enough to resist damage from even heavy hail. See the warranty for details.

Level One

Colours – CORRUGATED:
Clear, Opal, Grey, Light Bronze, Green, Wheat, Dark Tint.

Colours – GRECA
Clear, Opal, Grey, Light Bronze, Dark Tint.

Colours – 5 RIB:
Clear, Opal, Grey, Light Bronze, Dark Tint.

See colour chart, shade factors, light and heat transmission on page five.

Sheet cover 760 mm.

See table of sheet lengths and spanning on page seven.

Lifetime Warranty

PROFILES

# of outdoor living sa

9.9% protection from harmful UV rays that cause sunburn and skin damage. Outdoor family and ch
lution is the first step to ensure you get the maximum benefit from your investment. Polycarbonate i
ned by other materials. Adding an outdoor room to your home can enhance your family life and add
rbonate sheeting to choose from. A level to suit your needs and climate. A colour to suit your home

Level Two

'SOLASAFE' Comfort Range.

In designer colours that transmit less heat but allow plenty of soft light to pass through. More comfort.

Without doubt polycarbonate is by far the most preferred transparent/translucent roofing product throughout the world. In some situations a degree of heat control may be required, and in this regard 'Solasafe' Level Two sheeting offers a good solution. The designer colours – Smooth Cream and Mist Green reduce the amount of heat passing through the sheet, but still transmit ample light. The sheet is just as tough and long lasting as other Solasafe products, and protected by the same warranty.

Level Two

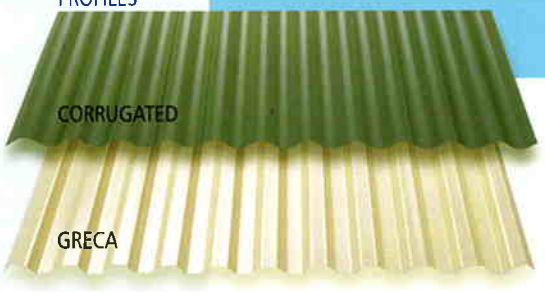
Colours --
CORRUGATED, GRECA
Smooth Cream
Mist Green

See colour chart, shade factors, light and heat transmission on page five.

99.9 per cent UV safe

Lifetime Warranty

PROFILES



Sheet cover 760 mm.

See table of sheet lengths and spanning on page seven.

fe from UV danger

ildren's play areas are part of the Australian
s an advanced polymer with optical and
l value to your property. Solasafe has
e and surroundings.

Level Three

'SOLASAFE' HR1 Heat Reducing polycarbonate.

Metallic particles reflect heat but allow soft diffused light to pass through. Especially suitable in hot climates.

The advanced technology incorporated in 'Solasafe' Level Three sheeting disperses and reflects up to 80% of the sun's heat while allowing soft, diffused light, to pass through. This is achieved by millions of metallic particles scattered through the sheet. The metallic particles also give the sheet an attractive silvery patina. Use Solasafe Level Three where the climate demands it. 99.9% UV protection is built-in to protect the sheet surface and the people below. Enjoy outdoor living in comfort.

Level Three

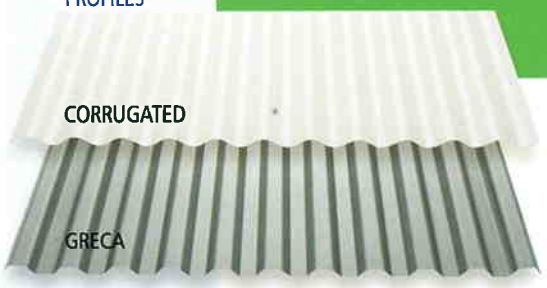
Colours — CORRUGATED, GRECA:
Pearl Ice
Silver Mist

See colour chart, shade factors, light and heat transmission on page five.

99.9 per cent UV safe

Lifetime Warranty

PROFILES



Sheet cover 760 mm.

See table of sheet lengths and spanning on page seven.

Solasafe is available in a Colour, Profile, and Heat Range to suit *every application.

*Except industrial use.

99.9 per cent UV safe

Level One

Key: 0 = full light 10 = full shade

The most widely used Solasafe Polycarbonate sheet. Seven colours with varying light and heat transmission

CLEAR Shade factor 1
Light transmission 91%
Heat transmission 85.2%

LT. BRONZE Shade factor 3
Light transmission 36%
Heat transmission 60.6%

GREY Shade factor 5
Light transmission 26%
Heat transmission 50%

OPAL Shade factor 7
Light transmission 55%
Heat transmission 40.2.2

GREEN Shade factor 3
Light transmission 48%
Heat transmission 65%

WHEAT Shade factor 7
Light transmission 30%
Heat transmission 38.1%

DARK TINT Shade factor 7
Light transmission 17%
Heat transmission 38.9%

Level Two

Key: 0 = full light 10 = full shade

The Solasafe Comfort Range. in designer colours. Low transmitted heat, softer light, more comfort.

SMOOTH CREAM Shade factor 7
Light transmission 44%
Heat transmission 35.2%

MIST GREEN Shade factor 7
Light transmission 20%
Heat transmission 37.3%

Temperatures in direct sunlight are greater than the temperatures given in weather reports. The shade factors shown provide an indication of the heat absorbed or reflected by the Solasafe sheet.

Level Three

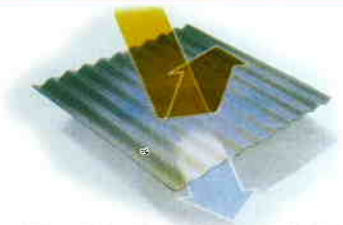
Key: 0 = full light 10 = full shade

Solasafe HR1 Heat Reducing sheeting. Especially suitable in hot climates.

PEARL ICE Shade factor 6
Light transmission 48%
Heat transmission 32.5%

SILVER MIST Shade factor 9
Light transmission 17%
Heat transmission 22%

Light transmission of all colours and grades is determined in accordance with AS/NZS 4257.4. The colour representations of Solasafe polycarbonate above 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.



Level Three Solasafe HR1 has a metallic finish that reflects the heat and gives soft diffused light

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

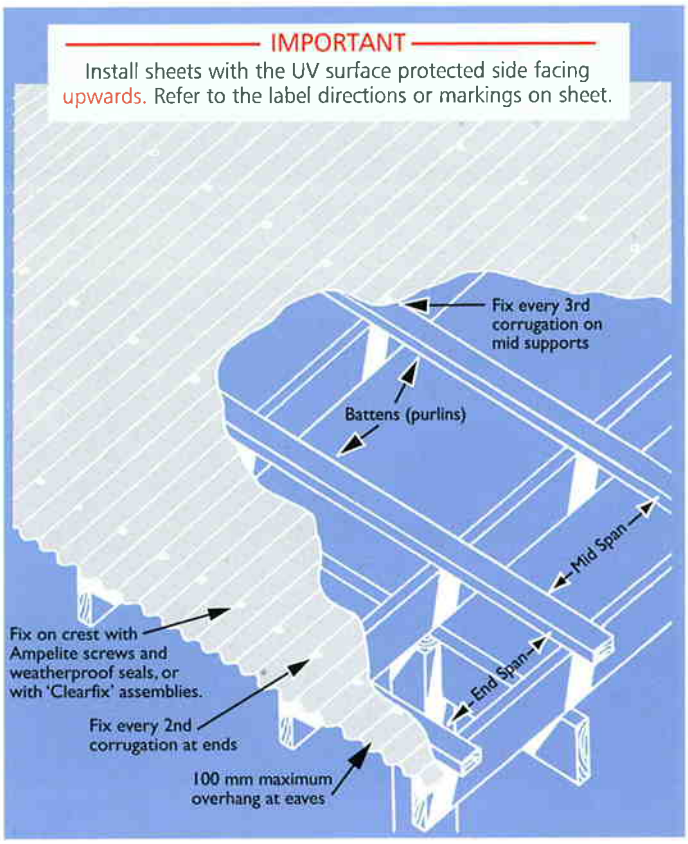
Polycarbonate is best cut with sharp snips. Small cuts can be made with strong, sharp scissors. If a power saw is used it should be fitted with a fine toothed blade suitable for cutting plastics or aluminium. Do not use high speed cut-off wheels or similar as they cause melting.

Condensation and ventilation

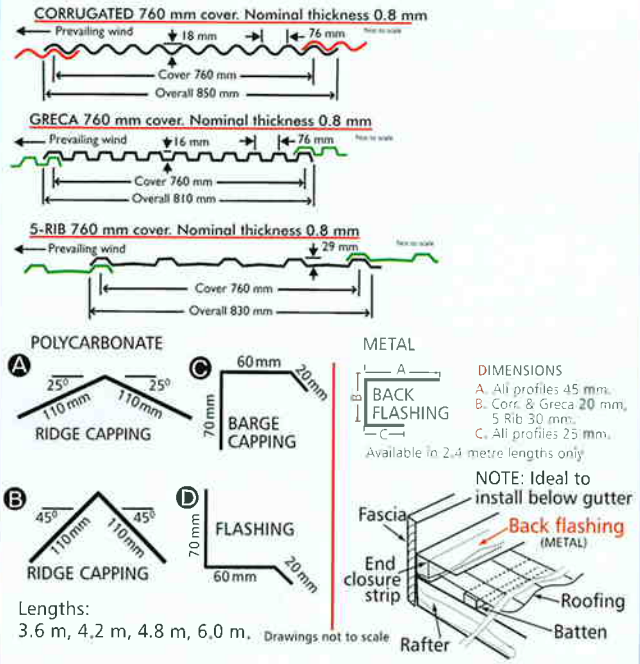
• Under single skin roofs and especially in cold weather, some condensation is mostly un-avoidable. Good ventilation will help minimise condensation.

Cleaning

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



PROFILES AND FLASHINGS



End Closure Foam Strip

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.

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 – Wheat, 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.

SPACING – PURLINS AND RAFTERS

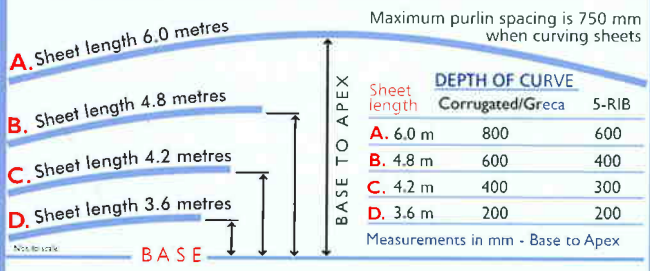
Maximum sheet spans	END	MID
Corrugated	800	900
Greca	900	900
5 Rib	900	1000

*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



Maximum purlin spacing is 750 mm when curving sheets

Sheet length	DEPTH OF CURVE Corrugated/Greca	5-RIB
A. 6.0 m	800	600
B. 4.8 m	600	400
C. 4.2 m	400	300
D. 3.6 m	200	200

Measurements in mm - Base to Apex

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.

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