

Solasafe Polycarbonate 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 way 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.

Solasafe Polycarbonate is another quality product from Ampelite

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Makes light work!
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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.

