

Dual Roof Anti Condensation Skylighting System



SIMPLE. FUNCTIONAL.

In today's environment of conservation and the reduction of energy consumption, the importance of environmentally friendly, cost effective products is ever increasingly recognised.

The savings and benefits of natural daylight in the workplace and in recreational facilities can be maximised at a fraction of the cost of dual glazing with Ampelite's Dual Roof System. This system provides good, evenly diffused natural light, eliminates condensation, and reduces transmitted heat.



The Ampelite Dual Roof System utilises the fundamental principles of double glazing in an innovative manner suited to the Australian climate; simplicity and ease of installation set it apart from complicated and costly double glazed skylights originally designed for overseas countries with cooler climates. Dual Roof is not unique in theory, in practice it provides long term cost savings with valuable benefits both to users and the environment.

Sports stadiums and multi-purpose halls where condensation quickly forms on the skylight panels due to internal warm moist air meeting with the cold skylight surface, have been quick to embrace the Ampelite Dual Roof Anti Condensation Skylighting System to solve the problem.



**DUAL
ROOF**
ANTI
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DUAL ROOF

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Condensation factors

Condensation will form on any surface having a temperature below the dew point temperature of the air under consideration. The relative humidity (amount of water vapour in the atmosphere) within a sports stadium can change rapidly with large numbers of occupants. At normal ventilation rates, a body of air will absorb moisture from the occupants at the rate of 50-60g/person/hour. This may result in the moisture content exceeding that of the external air by about 2g/kg of dry air. Therefore the risk of condensation forming on cooler surfaces increases dramatically.

Independent engineer's testing has established that the Ampelite Dual Roof Anti Condensation System displays superior thermal properties to conventional single sheet skylighting systems. Effectively this means better insulation.

Dual Roof benefits

- Eliminates condensation.
- Great energy savings.
- Cost effective.
- Can be combined with Webglas GC sheeting, or ClearSlide which allows even longer sheet lengths.
- Effective thermal insulation.

Installation information

The following table gives the recommended rib allocation for Dual Roof spacers.

Screws

Screw length includes Weatherlok washers. All screws are 12#, Type 17 fixing to timber or Metal Tek fixing to steel. The use of Clearfix Industrial or Fibreglass Tek's both with 32 mm weatherlok washers are recommended. These screws cut an oversize expansion hole as they drill.

Specification for Ampelite Anti Condensation Dual Roof system.

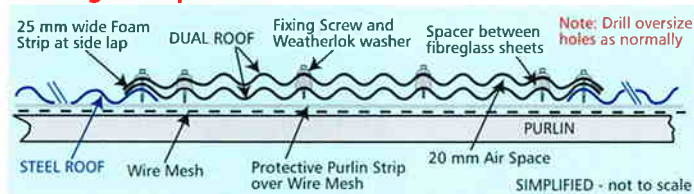
1. The Translucent Sheeting shall be Ampelite 'Wonderglas GC' Gel Coated Fibreglass Reinforced Polyester (exterior sheet) and Ampelite 'SR76' Fire Retardant Reinforced Polyester (base sheet) as manufactured by Ampelite Australia Pty Ltd to comply with AS/NZS 4256 parts 1 & 2: 2006. The weight of the sheet shall be 2400 g/m² and be manufactured to conform to the nominated profile and colour. Sheeting shall be installed in accordance with Ampelite fixing instructions and with the Plastic Building Sheets – General Installation Requirements and Design of Roofing Systems AS/NZS 1562, Part 3: 2006.

2. Colour – Top Sheet to be Opal. Base Sheet to be Natural Clear.
3. Protective foam strips.
4. Oversize holes up to 15 mm diameter must be drilled at all fixing points.
5. Note that the fibreglass roofing is double-layered with a 20 mm airgap. Both sheets are to be fixed to purlins with the same screws. I.E. Do not fix first sheet and then the second. Install base fibreglass sheet in conjunction with metal roofing.

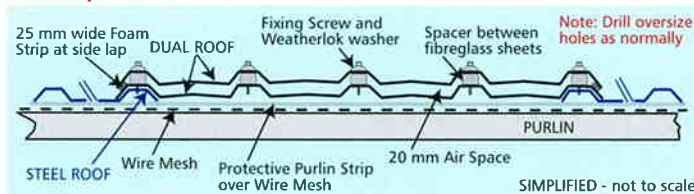
The top fibreglass sheet is then laid over base sheet. Install Ampelite spacing grommets between sheets to maintain the 20 mm air space.

Seal the side lap perimeter with nominal 25 mm x 5 mm thick sealing foam strip. Air gap is to remain open at gutter and under ridge capping to allow for release of moisture in between sheets.

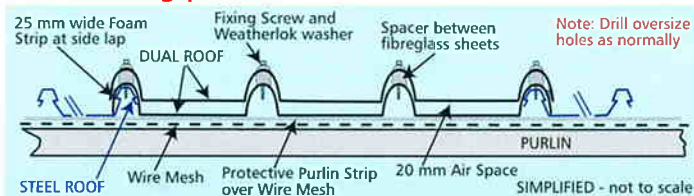
Corrugated profile



5 Rib profile



700 Decking profile



Profile	Fixing rib	Timber screw	Metal screw
5 Rib	Every rib	85 mm	75 mm
Clearslide	Every rib	–	45 mm
Corrugated	Ribs 2, 5, 8, 11	75 mm	65 mm
Decking 700	Every rib	95 mm	85 mm
Kliplok 700	Every rib	100 mm	90 mm
Longspan	Ribs 2, 4, 5, 7	85 mm	75 mm
Megaclad	Every rib	85 mm	75 mm
Spandek 700	Ribs 2, 4, 6, 8	80 mm	70 mm

Other profiles can be used – please consult an Ampelite office.



Ampelite Australia Pty Ltd ABN 91 487 122 629

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

