

DUALROOF

Ampelite's Dualroof Skylight

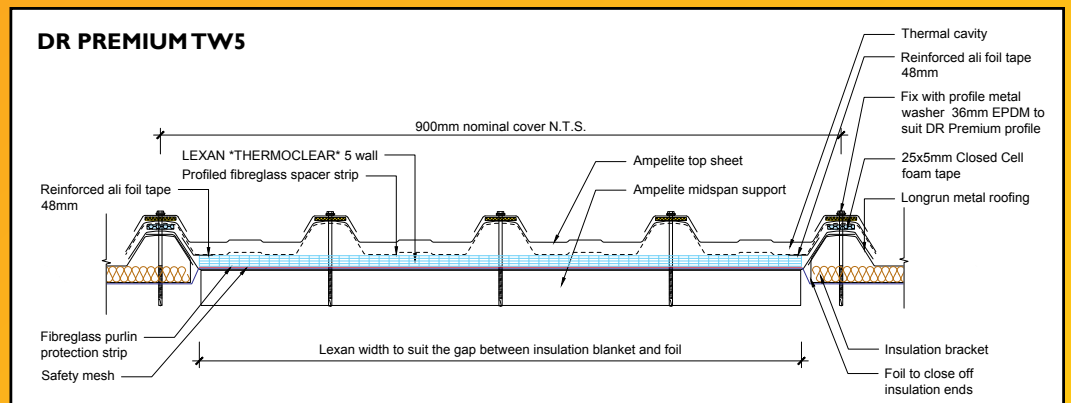
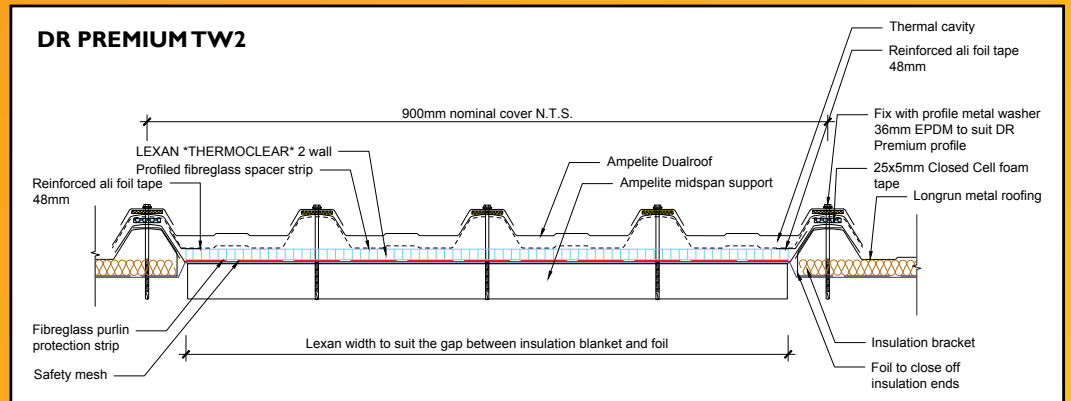
Insulated Skylight System

THERMAL PERFORMANCE

In today's environment of increased conservation-awareness, the reduction of energy consumption and the importance of using environmentally-friendly products cannot be overlooked. Using natural daylight as a lighting alternative is very much an effective tool in reducing energy consumption. However, in buildings that require climate control or air conditioning heat loss can diminish the benefits derived from the use of natural daylight. The solution: the Ampelite Dualroof insulated skylight system.

Ampelite Dualroof uses the fundamental principles of double-glazing to create a simple yet functional insulated sky lighting system. Overseas countries with colder climates use complicated double-glazed skylights to prevent heat loss, Ampelite Dualroof has specifically been designed for the New Zealand climate. With simplicity and ease of installation a high priority, the system provides natural daylight whilst also ensuring minimum heat loss.

The Dualroof system consists of a fibreglass top sheet and a Lexan 2 wall or 5 wall bottom sheet with a 20mm air gap between the two sheets. Depending on which Lexan sheet is utilized, the R Value of the sheets and air gaps are then added together to calculate the total R Value of the complete system.



WONDERGLAS S-996 OR COOL-LITE IR TOP SHEET

The Wonderglas S-996 top sheet can be supplied in either clear or opal colour. Where lower heat transmission is required while still allowing excellent light transmission, we suggest using our Cool-lite IR Solar control sheeting. Both Wonderglas S-996 and Cool-lite IR are protected by the highly UV resistant Silmar 996 gel coat developed in the United States through BP Chemicals, and used widely throughout New Zealand and Australia since 1995.

For applications where the skylights need to be able to withstand foot traffic, we recommend using our Webglas GC – trafficable fibreglass sheeting.

FIRE PERFORMANCE

Ampelite's Lexan 2 wall and 5 wall sheeting achieves an Internal Surface group number of IS Performance to meet the requirements of the New Zealand Building Code.



natural daylight & minimum heat loss



Freephone: 0800 AMPELITE
(0800 267 354)
www.ampelite.co.nz





Ampelite's Dualroof Skylite

Insulated Skylight System

When compared to other skylighting products, Ampelite Dualroof displays superior thermal properties. Please refer to the tables below.

LIGHT & HEAT TRANSMISSION (1800gsm-1.1mm)

Colour	CLEAR		OPAL	
	Light	Heat	Light	Heat
DR-TW2	65%	62%	49%	46%
DR-TW5	52%	48%	40%	20%

*For information regarding light and heat transmission when using Coolite IR as a top sheet, please contact your local Ampelite office.

AVAILABLE COLOURS & PROFILES

Dualroof is available with a Clear or Opal top sheet and a clear bottom sheet. Other colours can be produced to order for viable quantities.

Dualroof is compatible with most current commercial roofing profiles such as BB900, Steelspan, Topspan, DP955, Maxispan Multirib, ST900, Multispan and ST963 etc, plus most superceded profiles.

SHEETING GRADES & THICKNESS

Series	Weight (Kg/m ²)	Thickness
1800	1.8	1.1mm
2400	2.4	1.4mm
3050	3.05	1.7mm
3660	3.66	2.0mm
4270	4.27	2.3mm
4880	4.88	2.6mm

SPANNING CAPACITY

Spanning	1.5KPA				Drape Curve Radius	
	1.1mm/1800	1.4mm/2400	1.7mm/3050	2.2mm/3660	1.1mm/1800	1.4mm/2400
Dualroof -TW2	1600	1800	2000	2300	16m	18m
Dualroof -TW5	1600	1800	2000	2300	16m	18m

ACCESSORIES

Ampelite has a large range of accessories available to help make the installation of our Dualroof fast and professional. These accessories include our range of Ampelok self-drilling screws which oversize the fastener holes as they pass through the sheet, self-adhesive tapes and profiled foam sealing strips for vermin protection.

WARRANTY

Ampelite Dualroof features a 25 year warranty. For more information contact your nearest Ampelite office.

EXPANSION DATA

Material	Thermal Expansion	Thermal Co-efficient
Materials Expansion Comparison. 0° to 40° Temperature Variation. Sheet Length 6 metres.		
Fiberglass	7.2mm	3.0 x 10 ⁻⁵ cm/cm°C
Polycarbonate	16.2mm	6.75 x 10 ⁻⁵ cm/cm°C
Steel	2.9mm	1.2 x 10 ⁻⁵ cm/cm°C
Aluminium	5.8mm	2.4 x 10 ⁻⁵ cm/cm°C

INSULATION VALUE = R

Dualroof - 2 WALL	0.30 m ² .k/w
Dualroof - 5 WALL	0.56 m ² .k/w

*R Value Calculated to NZS 4214 – 2006

PHYSICAL PROPERTIES

Tensile Strength	80 Mpa
Impact Strength	8 Joules
Shear Strength	90 Mpa
Modulus of Elasticity	5500 Mpa
Compressive Strength	135 Mpa
Specific Gravity	1.45
Thermal Expansion	3.0 x 10 ⁻⁵ cm/cm°C
Water Absorption	.2% in 24hrs./26°C
Recommended Service Temperature Range	-20° to +95°C

- Auckland 09 634 5366
 - Palmerston North 06 356 5936
 - Christchurch 03 349 4674
- www.ampelite.co.nz

