

EEFAS Skylight System

NCC 2019 Part J1.4 Fully Compliant



Ampelite EEFAS

Energy Efficient Factory Assembled Skylight
Compliments Askin, Bondor & Kingspan insulated panels

The Ampelite EEFAS panel has been developed to compliment all insulated steel panels as produced by various manufacturers. As a totally integrated composite structure, the Ampelite EEFAS System provides benefits that traditional translucent skylights cannot achieve.

The EEFAS System offers excellent thermal insulation properties and is designed to conform to the Building Code of Australia (BCA), National Construction Code (NCC) 2019 for Class 2 to Class 9 Buildings especially and including Section J1.4, Energy Efficiency.

The Ampelite EEFAS System is manufactured to order being constructed with high quality components designed to completely integrate with the main insulated roofing panels. Exceptional spanning, together with the thermal conformities allows designers to achieve high levels of natural daylight within any project.



THE UNDER SIDE OF EEFAS SKYLIGHT SYSTEM



Main Components

Webglas GC: Webglas GC is a revolutionary Glass Reinforced Polyester (GRP) sheet that incorporates a heavy gauge woven glass web matting. This web matting provides a continuous reinforcement resulting in physical properties that are unattainable for standard fibreglass sheeting. The overall strength is such that Webglas GC is rated as trafficable and does not require safety mesh. This is an important aspect to sandwich panel construction which generally does not include safety mesh. The advanced "Gel Coated" (GC) resin technology manufactured within the Webglas GC sheet is highly UV resistant and provides for a low maintenance translucent sheet. The Gel Coat encapsulates the main body of the Webglas GC sheet preventing loss of natural daylight transmission and also very importantly, minimal loss of physical properties.

Lexan: Lexan Thermoclear is a high quality, low maintenance glazing material that is built to last. Manufactured in globally recognised Lexan Polycarbonate resin, the Thermoclear sheet provides crystal clear daylight transmission.

System Assembly

The Ampelite EEFAS System is factory assembled ensuring site measured requirements are strictly maintained. The Webglas GC and Lexan Thermoclear sheeting are joined and sealed using high density fire retardant foam spacers to match the insulated panel thickness. Colorbond side and end plates provide added stability whilst the EEFAS panel is being transported and installed. Each finished panel is airtight to prevent the formation of condensation or water ingress.

Installation

The Ampelite EEFAS system requires a minimum pitch of 2 degrees. The maximum length available is 6500mm. Exact lengths should be calculated based on steelwork plans/drawings. Please refer to span table in this document for maximum spanning. Please also refer to separate Ampelite fixing details as well as the insulated roof panel manufacturers data. A comprehensive order form is provided at time of ordering.

Warranty



The following benefits are in addition to any rights conveyed by government regulations and the Trade Practices Act. Ampelite Australia Pty. Ltd. Warrant the energy efficient Factory Assembled Skylight (EEFAS) over:

- 1. A period of 20 years (pro-rata cover) for the following:**
 - (a) The product will not allow water penetration through the actual panel.
 - (b) The product will not de-laminate or allow protrusion of reinforcing fibres through the surface of the sheet.
- 2. A period of 10 years (pro-rata cover) for the following:**
 - (a) Remain structurally sound and shatter resistant under normal conditions accompanied by winds up to 100km/hr.
 - (b) Excessive yellowing of sheets leading to loss of light transmission exceeding 10% of the original light value.

Specification (All Insulated Panel)

The Ampelite Energy Efficient Factory Assembled Skylight (EEFAS) System is designed to be used with all insulated panel roofing systems. All systems are designed for use on commercial buildings, with a roof slope of 2 degrees or greater.

Ampelite EEFAS and its components comply with the Building Code of Australia, Class 2 to 9 Buildings.

Webglas GC complies with Australian and New Zealand standards including AS/NZS1170.2: 2011, AS4256.3: 2006, AS1562.3: 2006 and AS4040.0: 1992.

Rooflights shall be Ampelite EEFAS Composite Panels complying with AS 4256 Parts 1, 3 and 5: 2006.

Sheeting shall be installed in accordance with AS1562.3: 2006. Design and Installation of sheet roof and wall cladding Part 3: Plastic.

Performance

Clear Lexan Thermoclear sheeting is provided as standard, if specific light and heat transmission figures are required, other colours are available. Please contact your nearest Ampelite office for further information. The Gel Coat (GC) incorporated in the 'Webglas GC' sheet is impervious and offers excellent resistance to surface delamination, UV and weathering.

THERMAL PERFORMANCE

- Solar Heat Gain Co-Efficient 0.14
- U-Value 1.6 W/m2K
- R- Value 0.62

ACOUSTIC PERFORMANCE

- Rw = 31dB (Sound reduction value)

PURLIN SPACING

Wind Pressure	4 Fasteners (Crest)	6 Fasteners (Pan)
1.0 kPa	3.0m	-
1.5 kPa	2.3m	3.0m
2.0 kPa	1.7m	2.6m
2.5 kPa	1.4m	2.0m

Why use an Ampelite EEFAS SYSTEM?

Architects today are continually challenged to create energy-efficient buildings that deliver a sound and aesthetic impact. Sustainability for today and our future needs has led to required thermal efficiencies as demanded within our BCA's Part J. The insulated sandwich panel market is at the forefront in the manufacture of the latest construction techniques providing designers newly found flexibility in projects across a wide range of sectors. The Ampelite EEFAS system provides real thermal advantages as well as natural daylight complimenting the aesthetically pleasing, energy efficient, safe, cost effective and sustainable answers that insulated panels can provide. All Part J requirements including Solar Heat Gain restrictions and U-Value requirements are met by the EEFAS panel. For further technical information, please contact your local Ampelite office.



Ampelite Australia Pty Ltd

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



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