

IAN BENNIE AND ASSOCIATES

TEST REPORT NO. 2010-106-S1

**535mm SKY TUNNEL XL²
SKYLIGHT TESTS TO AS 4285-1995**

for

SG Eco Industries Inc.

December 2010



Accredited Laboratory No. 2371
This document is issued in accordance with
NATA's accreditation requirements.



TEST REPORT NUMBER 2010-106-S1

Client: **SG Eco Industries Inc.**
Building 15A Philexceul Business Park, Pampanga, Philippines

Sample: **535mm Sky Tunnel XL²**
The sample was supplied mounted on a 90x45 timber frame with screw fixings around the perimeter of the metal base at nominally 250 mm centres.
Dome material: 3mm injection moulded acrylic

Details of the sample provided by the Client are given in Appendix A.

Test Location: Ian Bennie & Associates Laboratory **Test Date:** 28 October 2010
Dandenong, Victoria

Test Results: The sample was subjected to Watertightness, Resistance to Concentrated Loads, and Resistance to Wind Pressures for Non-cyclone Regions tests for Skylight assemblies nominated in Clause 11.2 of Australian Standard AS4285-1995, Skylights, with test methods and results as summarised below.

Watertightness PASS

Method: AS2050 Appendix C modified as required in AS4285

Test pitch angle(s): 27° roof pitch.

Sample orientations: Ridge normal to the wind stream and at 45° to the wind stream.

The sample was installed with the venting plates at the bottom edge.

Observations: Water appeared on top of the venting plates but no water penetrated into the throat of the sample.

Resistance to Concentrated Loads PASS

Method: AS4040.1 modified as required in AS4285

Load applied: 1.1kN at the centre of the dome.

Observations: The dome partially inverted under the load however the load was sustained for the test duration of 1 minute.

Resistance to Wind Pressures for Non-cyclone Regions

Method: AS4040.2 modified as required in AS4285.

Loads applied and sustained for 1 minute (kPa):

Positive	2.0	PASS
Negative	3.0	PASS

Observations: No sign of failure was observed at the test pressures. When the negative pressure was increased to -4.0 kPa the fixing screws around the perimeter of the metal base released from the timber frame.

Conclusion:

The test sample passed the test requirements of Australian Standard AS4285-1995 for Watertightness, Resistance to Concentrated Loads, and Resistance to Wind Pressures for Non-cyclone Regions.

The test of Resistance to Wind Pressures for Non-cyclone Regions determined the maximum Strength Limit State pressures sustained by the skylights during testing.

Maximum Strength Limit State Pressures Sustained	
+ 2.0 kPa	- 3.0 kPa

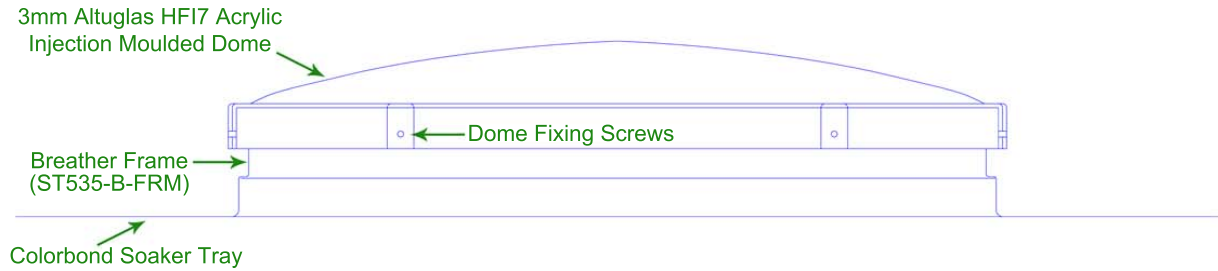
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Derek Dubout 10 December 2010
Authorised NATA Signatory

535mm Sky Tunnel XL² Drawing

Cross Section



Plan View

