



SKYLIGHT TEST NUMBER 9750S1

Test Client: Akron Manufacturing Pty Ltd

Sample ID: Non-vented 'Triple Insulated' skylight of throat size 1500 x 1500 mm
 Glazing material: 16mm "Carb-o-life" triple wall polycarbonate sheet.
 Manufacturer's details are given in Akron's drawing "16mm Triple Insulated Polycarbonate Skylight" dated 5-5-97.

Test Date(s): 12 & 13 November 1997



2000
Negative
Pa
1000
Positive

This Manufacturer certifies that this Skylight was designed to meet Australian Standard AS4285. Design performance ratings have been verified by a NATA accredited testing laboratory.

AKRON
9555-7466

Test Results: The test sample was subjected to a number of the tests for Skylight assemblies nominated in Clause 11.2 of Australian Standard AS4285-1995, Skylights, with test methods and results as summarised below:

Watertightness

Method: AS2050 Appendix C modified as required in AS4285
Sample orientations: Ridge normal (N) and angled at 45° (A) to the wind stream.
Test pitch angle(s): 27° (N & A).....**PASS**
Observations: No water penetration was observed

Resistance to Concentrated Loads

Method: AS4040.1 modified as required in AS4285
Load applied: 1.1 kN**PASS**
Observations: No damage or sign of permanent deformation was observed.

Resistance to Wind Pressures for Non-cyclone Regions

Method: AS4040.2 modified as required in AS4285
Pressure(s) applied: +0.75, +0.9, +1.2 and +1.5 kPa.....**PASS**
 ('+' denotes external pressure)
 -1.0, -1.5, -1.8, -2.1, -2.4, -2.7 and -3.0 kPa**PASS**
 -3.1 kPa**FAIL**

Duration: 1 minute at each pressure.

Observations: Creases began to appear in the sheet at -1.8 kN however these disappeared when the load was removed. Failure at -3.1 kPa occurred when the polycarbonate sheet released from under the trim along one edge. Whilst the sheet did not become completely removed from the base, the test load could not be sustained.

Maximum Strength Limit State pressure(s) sustained: +1.5 & -3.0 kPa

Conclusion:

The test sample passed the requirements of Australian Standard AS4285-1995 for Resistance to Wind Pressures for Non-cyclone Regions and Resistance to Concentrated Loads. The sample also passed the Watertightness test at the default pitch angle of 27°.

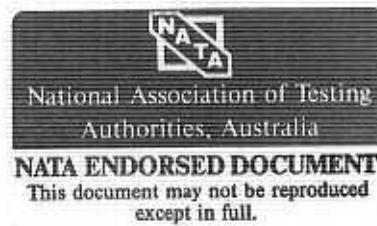
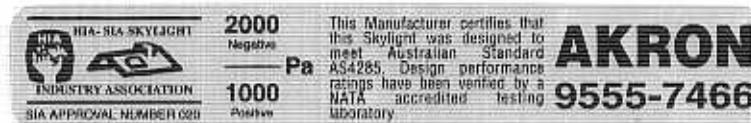
The test of Resistance to Wind Pressures for Non-cyclone Regions determined the maximum Strength Limit State pressures (p_u) sustained by the skylight during testing. The corresponding Permissible-Stress Design Wind Pressure (p_p) values for Australian Regions A and B, using : $p_p = \frac{p_u}{1.5}$ (based on Section 3 and Appendix E of AS1170.2) are:

Regions A and B	
Permissible-stress Design Wind Pressure	
+ 1000 Pa	- 2000 Pa

Note: These results are not applicable for Australian cyclonic regions C & D.

Test Location: Ian Bennie and Associates Test Centre
1 Luisa Avenue
Dandenong South, Victoria

Testing Officer: Derek Dubout (Authorised NATA Signatory)



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Signed.....
Derek Dubout
13 March 1998