IAN BENNIE AND ASSOCIATES

TEST REPORT NO. 2017-022-S4

RWF04
SKYLIGHT TESTS TO AS 4285-2007

for

Keylite Roof Windows

November 2017

NATA

Accredited Laboratory No. 2371
Accredited for compliance with ISO/IEC 17025.

IAN BENNIE & ASSOCIATES PTY. LTD.
Building Performance Testing
ACN : 007 133 253

NATA
Accredited
Laboratory
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Client: **Keylite Roof Windows**
Derryloran Industrial Estate, County Tyrone, Northern Ireland

Sample: **RWF04 .**
The sample was mounted on a timber base of 90 x 45 mm pine in accordance with the fitting instructions included in Appendix B. Appendix B provided by the Client details modifications required in order to pass the water penetration test.
Overall size: 780 x 980 mm
Shaft opening size: 730 x 940 mm
Glazing: Type 2004 laminated IGU
(4 mm toughened outer/20 mm argon space/6.38 laminated inner glass)

Test Location: Ian Bennie & Associates Laboratory **Test Date:** 27 June 2017
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 3.2.2 of Australian Standard AS4285-2007, Skylights, with test methods and results as summarised below.

Watertightness ..... **PASS at 15°, 27° (default)** 45° **and** 60°

Method: AS2050 Appendix C modified as required in AS4285

Test pitch angle(s): 15°, 27° (default) 45° and 60° roof pitch

Sample orientations: Square and at 45°

Sample detailing: Prior to the test the flashing was crimped and the base sealed.

Observations: No water penetration was observed during the tests.

Resistance to Concentrated Loads ..... **PASS**

Method: AS4040.1 modified as required in AS4285

Load applied: 1.1kN at the centre of the glazing and at one corner.

Observations: Each load was sustained for the test duration of 1 minute.

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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	4.22	**PASS**
Negative	6.39	**PASS**

Observations: No sign of failure was observed at the test pressures above.

Conclusion:

The test sample passed the test requirements of Australian Standard AS4285-2007 for Watertightness, Resistance to Concentrated Loads, and Resistance to Wind Pressures for Non-cyclone Regions at the test loads.

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	
+ 4.22 kPa	**- 6.39 kPa**

These loads correspond with the static loads nominated in AS4055-2012 for Wind Classes up to C4 for the General roof zone (away from edges) defined in that Standard

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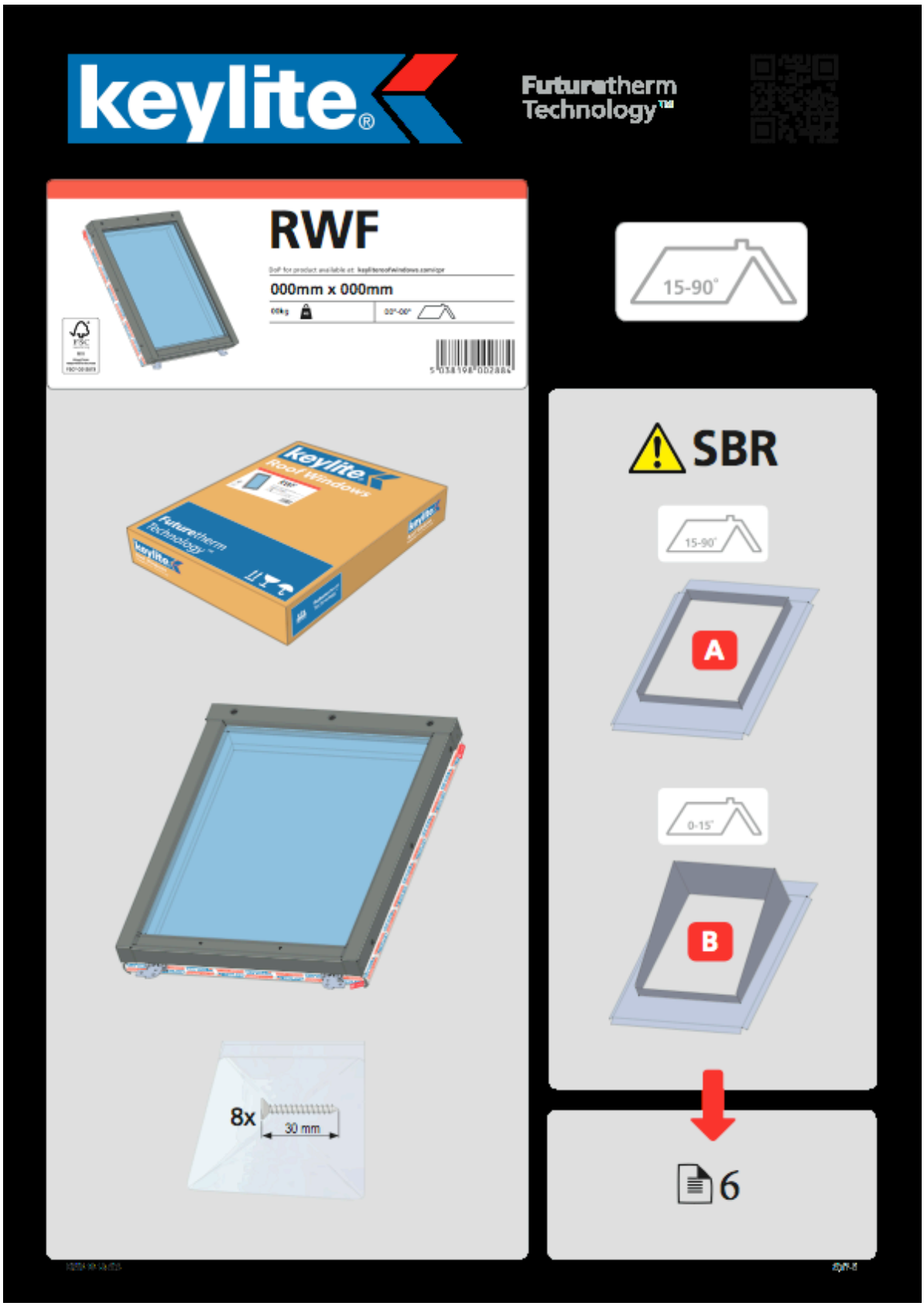
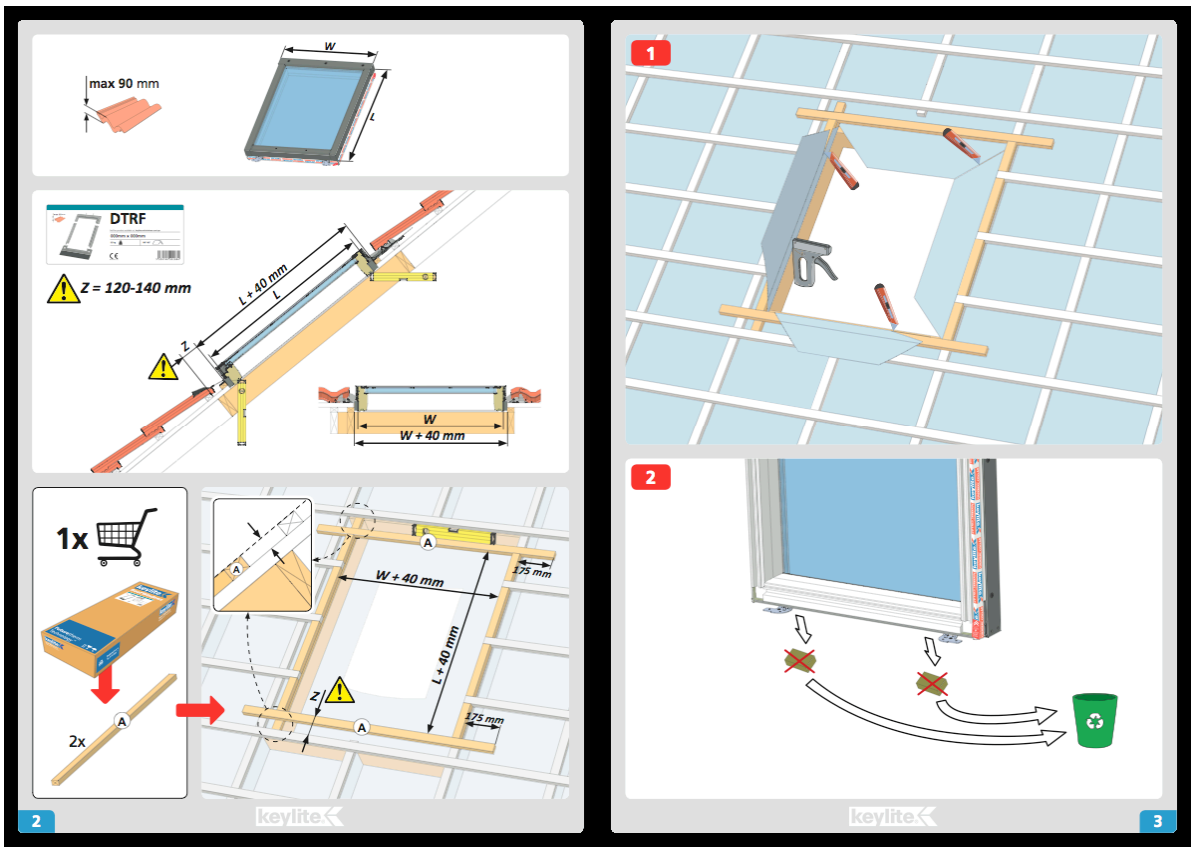
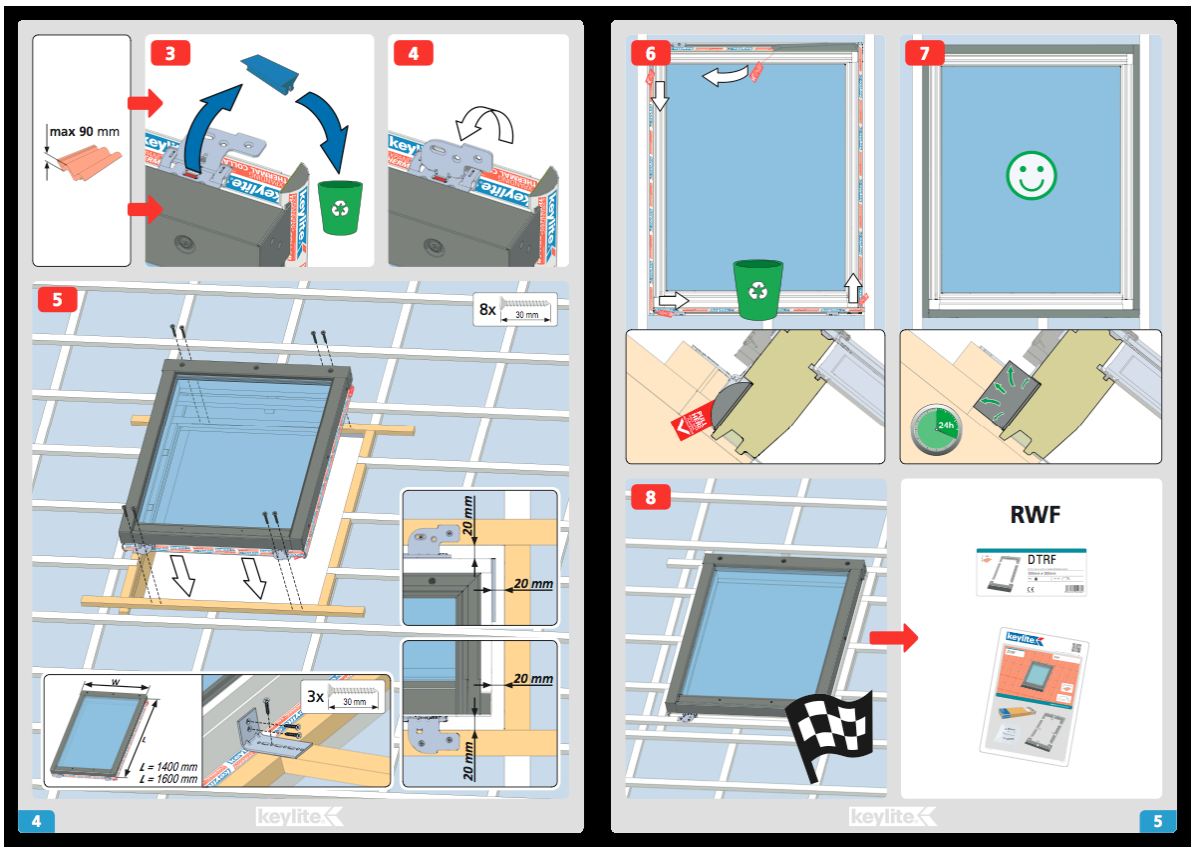
Keylite Roof Windows .....PDF

Ian Bennie 30 November 2017
Authorised Signatory


keylite
Futuretherm Technology™
RWF
000mm x 000mm
15-90°
SBR
15-90°
A
0-15°
B
8x
30 mm
6


max 90 mm
W
L
DTRF
Z = 120-140 mm
L + 40 mm
L
Z
W
W + 40 mm
1x
2x
A
W + 40 mm
175 mm
L + 40 mm
Z
175 mm
keylite
2
1
2
keylite
3


max 90 mm
3
4
5
8x
30 mm
20 mm
20 mm
20 mm
20 mm
3x
30 mm
W
L
L = 1400 mm
L = 1600 mm
keylite
4
6
7
24h
8
RWF
DTRF
keylite
keylite
5

Keylite Product test for RWF04

Melbourne Product Test 26/6 and 27/6 – Ian Bennie & Associates

RWF 04

Product fitted to a SBR flashing, window sealed on all four sides with Sikaflex Pro (sides and Back)

Additional capping installed.

The capping was fitted to installed brackets and crimped.

- **Water Test**

Pass 27 degrees
Pass 15 degrees (after curing of seal).
Pass 15 degrees
Pass 45 degrees
Pass 60 degrees

- **Load Test**

Tested @ two points, Middle of window and front Right corner

Product pass

- **Wind Load Test**

Pass positive test to maximum Australian Standards for both non-cyclonic and Cyclonic conditions
Pass negative test to maximum Australian Standard s for both non-cyclonic and Cyclonic conditions

Overall test is a Pass.

Product Notes.

The installation instructions has been modified to reflect the above testing including sealing between the window and the SBR, an extra back capping being fitted, and crimping of the extra capping to the brackets.