



# BEAL Appraisal Certificate

## The Suntrenz™ range of Suntube™ Sunlights from Suntrenz Skylights Ltd.



### Product

- 1.1 The Suntrenz™ Suntube™ Skylights from Suntrenz Skylights Ltd, is a range of Skylights used on roofs of buildings to provide natural light into interior spaces within buildings.
- 1.2 The Suntrenz™ offer 6 models of Suntube™ - S400F, S500F and S600F that features flexible internal light shaft, S400R, S500R and S600R which use rigid light shaft. Each model has its own proprietary flashing inbuilt to the skylight depending on the roof profile. All models are suitable for roof pitches between 0° and 60°. All models can also be used to provide ventilation.
- 1.3 The Suntrenz Skylights are to be designed and installed within the scope and limitations described in the Suntrenz Technical Manual.

### Building Regulations

- 2.1 In the opinion of BEAL, the Suntrenz Skylights, when designed, installed and maintained in accordance with the statements and conditions of this Appraisal Certificate, will meet the following provisions of the New Zealand Building Code (NZBC):
  - Clause B1 MECHANICAL / ADHESION PROPERTIES  
The Suntrenz Skylights meets the requirements of Performance Clause B1.3.3 (g) & (h) snow and wind loads. See paragraph 7.1
  - Clause B2 DURABILITY  
Performance Clause B2.3.1 (b) 15 years - The Suntrenz Skylights meets this requirement. See paragraph 8.1

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#### Clause E3 EXTERNAL MOISTURE

Performance E2.3.1 & E2.3.2. Roofs incorporating the Suntrenz Skylights contributes to meeting this requirement. See paragraph 9.1

#### Clause F2 HAZARDOUS BUILDING MATERIALS

Performance F2.3.1. The Suntrenz Skylights meets this requirement and will not present a health hazard to people. See paragraph 10.1

#### Clause G4 NATURAL VENTILATION

Performance FG4.3.1. The Suntrenz Skylights can be used to help meet the G4 Natural Ventilation requirements. See paragraph 11.1

#### Clause G7 NATURAL LIGHT

Performance G7.3.1. The Suntrenz Skylights can be used to help meet the G7 Natural Light requirements. See paragraph 12.1

#### Clause H1 ENERGY EFFICIENCY

Performance H1.3.2E The Suntrenz Skylights contributes to a building meeting the energy efficiency requirements in all climate zones. See paragraph 13.1.

2.2 The Suntrenz Skylights has been appraised as an **Alternative Solution** in terms of New Zealand Building Code Compliance.

## Scope and Limitations

3.1 The Suntrenz Skylights has been appraised for use as of Skylights used on roofs of buildings to provide natural light into interior spaces within buildings within the following scope:

- With building structures designed and constructed to comply with the NZBC; and,
- On roofs that have been shown to comply with all requirements described in the Suntrenz Skylights Technical Manual;

3.2 The design and construction of the roof and its substructure are the responsibility of the owner/building designer and are outside the scope of this Appraisal Certificate.

3.3 The Suntrenz Skylights shall be installed only by Suntrenz Skylights Ltd. trained and approved installers.

## Technical Literature

4.1 The Suntrenz Skylights Technical Literature Ver 1.1 must be read in conjunction with this Appraisal. All aspects of design, use, installation and maintenance contained within the Technical Literature and scope of this Appraisal Certificate must be followed.

4.2 For a copy of this Technical Literature please contact Suntrenz Skylights Ltd.

## Technical Specification

5.1 Materials and accessories supplied by Suntrenz Skylights Ltd. are as follows:

- Roof Flashing Components
- Skylight Dome
- Vents
- Roof Sealant
- Fixings
- Light Shaft
- Upper Ring Rigid Only
- Lower Ring Rigid Only
- Jointing Material

5.2 Kits are available which include the Dome, Breather Frame, Tabs & Flashing all assembled and ready to Install.

### Handling and Storage

5.3 All components must be stored away from inclement conditions and to prevent damage.

## Design Information

### General

6.1 All Installations must follow Suntrenz Installation Instructions and/or The NZ Metal Roof and Wall Cladding Code of Practice.

6.2 Before any installation can be carried out, it is essential that a careful inspection of the roof area where the product is to be installed, be checked to verify structural integrity, particularly for roofs not new.

### Snow & Wind Loads - Clause B1

7.1 The properly installed Suntrenz Skylights meet the requirements of clauses B1.3.3 (g) & (h).

### Durability - Clause B2

8.1 Performance B2.3.1 (b) The Suntrenz Skylights, when installed in accordance with this Appraisal Certificate and subjected to normal conditions of environment and use, is expected to have a serviceable life of at least 15 years based on ease of access.

### External Moisture - Clause E2

9.1 Performance E2.3.1 & E2.3.2 The Suntrenz Skylights will comply with the requirements of this clause when the system is installed according to the procedures set out in the Technical Manual, subject to the limits described therein and elsewhere in this appraisal document.

### Hazardous Building Materials - Clause F2

10.1 Performance F2.3.1. The Suntrenz Skylights when installed according to the requirements of this appraisal meets this requirement and will not present a health hazard to people using the building.

### 11.1 NATURAL VENTILATION - Clause G4

Performance FG4.3.1. The Suntrenz Skylights can be used to help meet the G4 Natural Ventilation requirements.

### 12.1 NATURAL LIGHT - Clause G7

Performance G7.3.1. The Suntrenz Skylights can be used to help meet the G7 Natural Light requirements. See paragraph 10.1

### 13.1 ENERGY EFFICIENCY - Clause H1

Performance H1.3.2E The Suntrenz Skylights contributes to a building meeting the energy efficiency requirements in all climate zones. See paragraph 10.1.

## Installation Information

### Installation Skill Requirement

14.1 Installation of the Suntrenz Skylights must be carried

out under the supervision of a person who has been trained and approved by Suntrenz Skylights Ltd.

### 15.1 Remedial Work

The installation of the Suntrenz Skylights products over any repaired parts of a floor or wall in wet areas other than very minor repairs, is subject to specific design and outside the scope of the this Appraisal Certificate.

### 16.1 Health and Safety

The safe use and handling of the coating system and related components are provided in the Technical Literature. The products must be used in conjunction with the relevant materials safety data sheet for each product.

## Basis of Appraisal

BEAL use the compliance verification procedure to demonstrate compliance with the relevant clauses of the NZBC based on a risk analysis procedure. The following is a summary of the technical investigations carried out:

### Assessments

17.1 The following assessments of the Suntrenz™ Suntube™ Skylights from Suntrenz Skylights Ltd have been undertaken by BEAL:  
Review of test data and technical literature supplied by Suntrenz Skylights Ltd.

### Tests

18.1 The following testing of the Suntrenz Skylights has been undertaken by BEAL to verify compliance:

- Wind and rain resistance up to an including
- Durability of the self-adhesive tape used for sealing of the roof testing before and after accelerated age conditioning
- UV resistance of the tape used for sealing of the roof
- Water resistance by way of streaming water resistance

18.2 The above test methods, results and respective laboratory test reports have been assessed by BTS and found satisfactory.

### Other Investigations

19.1 An opinion has been given by BEAL of the durability of the Suntrenz Skylights based on test data and in-service history.

19.2 The installation of the Suntrenz Skylights was also evaluated (including site visits) in practical building situations assessing the following;

- Ease of installation
- Potential risks of non-performance when being installed
- Any external factors that could affect the quality of the installed product
- Ease of repair or maintenance

19.3 The Technical Literature has been examined by BEAL and found to be satisfactory.

### Quality

20.1 The manufacture of each of the components that make up the range of Suntrenz Skylights has not been assessed by BEAL, but details regarding the history and

composition of the materials used were obtained by BEAL and found to be satisfactory.

20.2 The quality of materials, components and accessories supplied by Suntrenz Skylights Ltd. is managed through the use of a Building Product Quality Plan.

20.3 The Suntrenz Skylights Ltd. Building Product Quality Plan ensures continuous conformance with the quality requirements from purchase to supply of components.

20.4 Suntrenz Skylights Ltd.'s Building Product Quality Plan is reviewed and audited at least annually by BEAL or appointed agent.

20.5 Designers are responsible for the substructure design, and building contractors are responsible for the quality of construction of the substructure or new substrate in accordance with the instructions of the substrate manufacturer and this Appraisal Certificate.

20.6 Building owners are responsible for the maintenance of the Suntrenz Skylights in accordance with the instructions of Suntrenz Skylights Ltd. and this Appraisal Certificate.

### Sources of Information

- NZS 3604:2011 Timber framed Buildings
- Compliance Documents issued by MBIE.
- New Zealand Building Code Handbook and Approved Documents, Building Industry Authority, 1992.
- The Building Regulations 1992, up to, and including, July 2011 Amendment.
- Test reports, a buildability assessment report and technical literature supplied by the manufacturer.

## Concluding statement

21.1 In the opinion of BEAL, the Suntrenz Skylights is fit for purpose and will comply with the NZBC to the extent specified provided that it is used, designed, installed and maintained as set out in this Appraisal Certificate. The Appraisal Certificate is issued only to Suntrenz Skylights Ltd., and is valid until further notification, subject to the conditions of this Appraisal.



# Conditions of Appraisal

1. This appraisal Certificate :
  - a) Relates only to the Suntrenz Skylights as described herein;
  - b) Must be read, considered and used in full, together with the current version of the Technical Literature
  - c) Does not address any legislation, regulations, codes or standards, not specifically named herein;
  - d) Is copyright of BEAL
2. The Appraisal Certificate holder continues to meet the quality requirements of the Suntrenz Skylights Ltd. Building Product Quality Plan and has the plan audited and Appraisal certificate revalidated by BEAL on an annual basis.
3. Suntrenz Skylights Ltd. shall notify BEAL and obtain approval of any changes of the product specification or quality assurance prior to product being marketed including any trade literature, web site info or the like.
4. BEAL makes no representation as to:
  - a) The nature of individual examples of, batches of, or individual installations of the product, including methods and workmanship;
  - b) The presence or absence of any patent or similar rights subsisting in the product or any other product;
  - c) Any guarantee or warranty offered by the Appraisal Certificate holder.
5. BEAL's verification of the building product or system complying with one or more of the above-mentioned criteria is given on the basis that the criteria used were those that were appropriate to demonstrate compliance with the NZBC at the date of this Appraisal Certificate. In the event that the criteria is withdrawn or amended at a later date, this Appraisal may no longer remain valid.
6. Any reference in this Appraisal Certificate to any other publication shall be read as a reference to the version of publication specified in this Appraisal Certificate.



Authorised Signatory



C R Prouse - Director  
BEAL Testing Services  
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