



**SPECIFY WITH  
CONFIDENCE**

**BRANZ Appraisals**

**Technical Assessments of  
products for building and  
construction**

**BRANZ  
APPRAISAL  
CERTIFICATE  
No. 526 (2006)**

**DANPALON  
POLYCARBONATE  
GLAZING SYSTEM  
- HOUSING**

**Everlight NZ Ltd**  
P O Box 81059  
Whenuapai  
Waitakere 0662  
Auckland

Tel: 09 416 7410  
Fax: 09 416 7410

Web: [www.danpal.com](http://www.danpal.com)  
Email: [wmeverlight@xtra.co.nz](mailto:wmeverlight@xtra.co.nz)



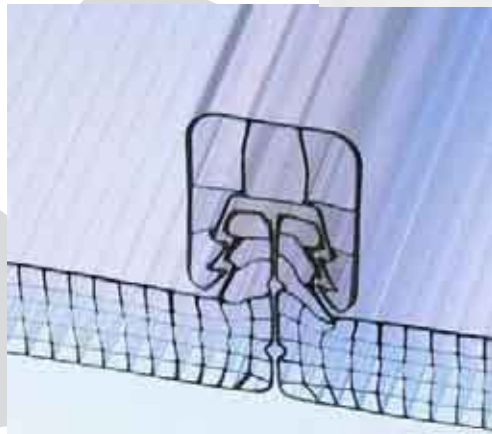
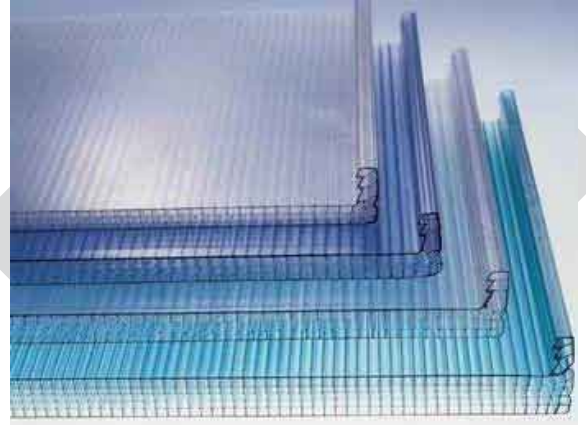
BRANZ Limited  
Private Bag 50 908  
Porirua City  
New Zealand  
Tel: +64 4 237 1170  
Fax: +64 4 237 1171  
[www.branz.co.nz](http://www.branz.co.nz)

BRANZ Pty Ltd  
P O Box 830  
Brookvale  
NSW 2100  
Australia  
Tel: +61 2 9938 6011  
Fax: +61 2 9938 6911  
[www.branz.com.au](http://www.branz.com.au)



## Product

1.1 The Danpalon Polycarbonate Glazing System is designed for use as roof and wall glazing in housing and similarly constructed buildings. Danpalon is available in two profile types, Danpalon Multicell and Danpalon Compact and in a range of colours.



## Scope

2.1 The Danpalon Polycarbonate Glazing System has been appraised for use as roof and wall glazing for buildings within the following scope:

- the scope limitations of NZBC Acceptable Solution E2/AS1 Paragraph 1.1, with regard to floor plan area and building height; and,
- with roof or wall framing designed and constructed in accordance with NZS 3604; or
- with timber, steel or aluminium roof or wall framing subject to specific design; and,
- situated in NZS 3604 Building Wind Zones up to and including 'Very High'; and,
- where the minimum roof pitch is 5°; and,
- where the minimum roof pitch is 10° where sheets are overlapped or subjected to snow loading; and,
- where the maximum length of roof is 40 m.

# Building Regulations

## New Zealand Building Code (NZBC)

3.1 In the opinion of BRANZ, the Danpalon Polycarbonate Glazing System, if designed, used, installed and maintained in accordance with the statements and conditions of this Certificate, will meet or contribute to meeting the following provisions of the NZBC:

**Clause B1 STRUCTURE:** Performance B1.3.1, B1.3.2 and B1.3.4. The Danpalon Polycarbonate Glazing System meets the requirements for loads arising from self-weight, earthquake, snow, wind, impact, and creep, [i.e. B1.3.3 (a), (f), (g), (h), (j) and (q)]. See Paragraphs 9.1 - 9.5.

**Clause B2 DURABILITY:** Performance B2.3.1(b), 15 years. The Danpalon Polycarbonate Glazing System meets this requirement. See Paragraphs 10.1 - 10.3.

**Clause E2 EXTERNAL MOISTURE:** Performance E2.3.1 and Performance E2.3.2. Danpalon Polycarbonate Glazing System meets this requirement. See Paragraphs 15.1 - 15.3.

**Clause F2 HAZARDOUS BUILDING MATERIALS:** Performance F2.3.1. The Danpalon Polycarbonate Glazing System meets this requirement and will not present a health hazard to people.

Performance F2.3.3(b) Danpalon Polycarbonate Glazing System meets this requirement. See Paragraphs 17.1 and 17.2.

**Clause G7 NATURAL LIGHT:** Performance G7.3.1 and G7.3.2. The Danpalon Polycarbonate Glazing System can be used to meet these requirements. See Paragraph 18.1.

**Clause H1 ENERGY EFFICIENCY:** Performance H1.3.1 and H1.3.2. The Danpalon Polycarbonate Glazing System will contribute to meeting these requirements. See Paragraphs 20.1 and 20.2.

3.2 This Certificate appraises an **Acceptable Solution** in terms of New Zealand Building Code compliance.

connectors and spacers are manufactured from the same material.

## Branding

- Danpalon sheets are branded with the Danpalon brand, the date of manufacture and marks to show the UV protected exterior face.

## Fasteners

- Danpalon Multicell sheets are held in place by stainless steel fasteners. Two types of fasteners are used. One is a 38 mm long Heavy Duty Knee fastener with two fixing holes for use with the polycarbonate connector and the 30 mm deep standard aluminium connector. The other is an 80 mm long Trapezoidal fastener with three fixing holes for use with the 54 mm deep heavy duty aluminium connector. (*Note that the Trapezoidal fastener can be used with the other Multicell connectors.*)
- Danpalon Compact uses a polycarbonate spacer between the sheets. At fixing locations a 30 x 15 mm stainless steel Retention Plate is used with a 6 mm diameter stainless steel fixing to the supporting structure. For fixing into timber, a 6 mm x 60 mm wood screw is used.
- Fixings into timber for non specific design situations for Danpalon Multicell are 2 – 4 mm x 40 mm long stainless steel screws for Heavy Duty Knee fasteners and 3 – 4 mm x 40 mm long stainless steel screws for Trapezoidal fasteners. Fixings into steel or aluminium structural supports are to be to a specific engineering design.

## Accessories

- Polycarbonate and aluminium connector end caps for closing off connectors
- Polycarbonate and aluminium end caps for closing Danpalon Multicell sheets.
- Compressible foam infill 40 mm x 1.8 m long.
- Anti dust tapes, breather tape and blanking tape.

4.2 Accessories supplied by the building contractor are:

## Flashings and Sealants

- *Flashings* – folded from aluminium or galvanised steel. Refer to NZS 3604, Section 4 and NZBC Acceptable Solution E2/AS1, Table 20 for material selection durability requirements if not otherwise specified. Flashing profiles and intersection details must be to a specific weathertightness design where not detailed in the Technical Literature.
- *Flexible Sealant* – sealant complying with NZBC Acceptable Solution E2/AS1, or sealant covered by a valid BRANZ Appraisal Certificate for use as a weather sealing sealant for exterior use. Where in contact with Danpalon sealants must be neutral/non-acidic, compatible with polycarbonate.

## Handling and Storage

5.1 Handling and storage of all materials supplied by Everlight NZ Ltd or the building contractor, whether on site or off site, is under the control of the building contractor.

5.2 The sheets are packed in pairs with a plastic cover. Sheets, connectors and accessories must be stored flat, dry, be protected from damage, and sheltered from the sun. Due to the fact the sheets are light in weight they must be sheltered from wind or be restrained.

5.3 Polycarbonate sheets can be damaged by scratching once the protective film is removed and precautions should be taken on site to prevent this.

# Technical Specification

## General

4.1 System components and Accessories supplied by Everlight NZ Ltd are:

### Danpalon Sheets

- Danpalon sheets are available in two profile types, Danpalon Multicell and Danpalon Compact. Danpalon Multicell sheets have a multi internal rectangular structure and are available in three thicknesses; 8 mm, 10 mm and 16 mm with a sheet wide of 600 mm. Danpalon Compact is a solid sheet 4 mm thick and 592 mm wide. Danpalon sheets are available in standard lengths up to 12 m long. The colours available are ice, opal, clear, grey, reflective grey, green and bronze.

### Danpalon Connectors

- Polycarbonate connectors for Danpalon Multicell are 30 mm wide and 30 mm high and for Danpalon Compact they are 21 mm wide and 27 mm high.
- Aluminium connectors are 32 mm wide and 30 mm high for the 'standard' and 54 mm high for the 'heavy duty'. Aluminium connectors are available anodised or with a powdercoated finish.

### Materials

- The sheets are extruded from polycarbonate MAKROLON from BAYER. The sheets are co-extruded with a UV (Ultra-Violet) protection layer on the exterior face. Polycarbonate

## Technical Literature

6.1 Refer to the Appraisals listing on the BRANZ website for details of the current Technical Literature for the Danpalon Polycarbonate Glazing System. The Technical Literature must be read in conjunction with this Certificate. All aspects of design, use, installation and maintenance contained in the Technical Literature and within the scope of this Certificate must be followed.

## Design Information

### General

7.1 The Danpalon Polycarbonate Glazing System is designed for use as roof and wall glazing in housing and similarly constructed buildings that fall within the scope of NZBC Acceptable Solution E2/AS1. The supporting structure may be designed and constructed in accordance with NZS 3604 with timber treatment in accordance with NZS 3602. Alternatively the supporting structure may be specifically designed using timber, steel or aluminium.

7.2 In the roof situation, the standing seam must be on the top side and be parallel with the slope of the roof. In the wall situation the sheets must be vertical with the standing seam on the outside and running vertically.

### Supporting Structure

8.1 The design of the structure supporting the Danpalon Polycarbonate Glazing System is outside the scope of this Certificate and must be the subject of specific design except where NZS 3604 is used for design. The selection of materials and protective finishes for the supporting structure must be suitable for the environment they will be in, taking account of air contaminants, condensation and moisture.

### Structure

#### Mass

9.1 The mass of the Danpalon Polycarbonate Glazing System is given in Table 1.

**Table 1: Mass of Danpalon Polycarbonate Glazing System**

System	Polycarbonate connector kg/m <sup>2</sup>	Aluminium connector kg/m <sup>2</sup>
Danpalon Multicell 8 mm	2.1	3.2
Danpalon Multicell 10 mm	2.7	3.7
Danpalon Multicell 16 mm	3.6	4.6
Danpalon Compact	5.2	6.2

Danpalon is considered a light roof in terms of NZS 3604.

#### Snow

9.2 The Danpalon Polycarbonate Glazing System is suitable for use on roofs subject to a maximum 1 kPa snow loading. Roofs subject to snow loading must have a minimum pitch of 10°.

#### Wind Zones

9.3 The Danpalon Polycarbonate Glazing System is suitable for use in Building Wind Zones of NZS 3604 as detailed in Tables 2, 3 and 4.

**Table 2: Allowable Roof Spans for Danpalon Multicell 8 mm, 10 mm and 16 mm thick by 600 mm wide**

NZS 3604 Building Wind Zone	Maximum Roof Span (m) Two or more spans					
	DP08 PC	DP10 PC	DP16 PC	DP08 Aul	DP10 Aul	DP16 Aul
Medium	0.50	0.70	0.85	1.25	1.50	2.0
High	-	0.50	0.60	0.90	1.10	1.40
Very High	-	0.40	0.45	0.70	0.85	1.10

**Table 3: Allowable Wall Spans for Danpalon Multicell 8 mm, 10 mm and 16 mm thick by 600 mm wide**

NZS 3604 Building Wind Zone	Maximum Wall Span (m) Two or more spans					
	DP08 PC	DP10 PC	DP16 PC	DP08 Aul	DP10 Aul	DP16 Aul
Medium	0.60	0.90	1.10	1.45	1.70	2.15
High	0.45	0.65	0.75	1.15	1.40	1.80
Very High	-	0.50	0.60	0.90	1.10	1.40

Notes:

1. Tables apply only in situations where there are no dominant wall openings.
2. Table 2 includes snow loads up to 1 kPa.
3. PC = Polycarbonate connector with Heavy Duty Knee fastener.
4. Aul = 54 x 32 mm heavy duty aluminium connector with 80 mm Trapezoidal fastener.

**Table 4: Allowable Spans for Danpalon Compact**

NZS 3604 Building Wind Zone	Maximum Span (m) Two or more spans	
	Roof	Wall
Medium	0.60	0.80
High	0.40	0.55
Very High	0.35	0.45

Note:

1. Table applies only in situations where there are no dominant wall openings.
2. Table includes snow loadings up to 1 kPa.

### Impact

9.4 The Danpalon Multicell and Danpalon Compact have adequate resistance to impact from hail.

### Loading

9.5 Danpalon elements are not designed for loading during installation, subsequent construction processes or maintenance (e.g. walking or stacking materials on the roof).

### Durability

#### Serviceable Life

10.1 Danpalon Polycarbonate Glazing System for roofs and walls will have a serviceable life of at least 15 years provided the system is installed and maintained in accordance with this Certificate.

10.2 The co-extruded UV protection layer helps to limit any yellowing and dimming of light transmission with age. The effect of UV, and erosion from wind and rain will become noticeable over time.

10.3 Dirt, lichen, moss or fungi will form more readily on low pitched roofs due to the lesser effect of self cleaning.

## Maintenance

11.1 Cleaning of the Danpalon products should be carried out using clean water containing solvent-free or alkali-free household detergent. To avoid scratching of the surface only soft cloths should be used when cleaning and care should be taken to ensure that abrasive material is not in the cloth. Lichen, moss or fungi should be removed.

11.2 Precautions, when maintenance is being carried out, should be in line with the relevant Health and Safety requirements.

11.3 Under no circumstances should anyone venture onto the sheets. For maintenance purposes special precautions should be taken to prevent the possibility of falling through, even though the sheet and structural system may support such a load.

## Control of External Fire Spread - Wall Cladding

12.1 The Danpalon Polycarbonate Glazing System is considered to meet the performance provisions of NZBC Clause C3.3.5 for use as an external wall cladding when restricted to:

- Single storey buildings 1 m or more from the boundary for all purpose groups.
- Buildings up to 7 m high, 1 m or more from the boundary, for all purpose groups other than SC and SD.
- Fully sprinklered buildings up to 10 m high for NZBC Acceptable Solution E2/AS1 scope, 1 m or more from the boundary for all purpose groups other than SC, SD, SA and SR.
- Buildings containing purpose group SH, with a building height less than 10 m and located 1 m or more from the boundary.

*(Note for NZBC E2/AS1: The scope of this Certificate limits buildings heights to 10 m in accordance with the limitations of NZBC Acceptable Solution E2/AS1, Paragraph 1.1(a). The building heights referenced above are as defined in the Definitions Section of the Fire Safety Clauses of the NZBC.)*

## Control of External Fire Spread - Roof Cladding

13.1 The Danpalon Polycarbonate Glazing System is combustible and is suitable for use as an external roof cladding in all purpose groups, except purpose groups SC and SD, subject to the requirements of NZBC Acceptable Solution C/AS1 Part 7, Paragraph 7.9.

## Outbreak of Fire

14.1 The Danpalon Polycarbonate Glazing System must be separated from chimneys and flues in accordance with the requirements of NZBC Acceptable Solution C/AS1 Part 9 for the protection of combustible materials.

## External Moisture

15.1 The Danpalon Polycarbonate Glazing System when installed in accordance with this Certificate, will shed precipitated moisture and therefore meet the performance requirements of NZBC Clause E2.3.1. The Danpalon Polycarbonate Glazing System will also prevent the penetration of water that could cause dampness, or damage to building elements, therefore meeting the performance requirements of NZBC Clause E2.3.2.

15.2 The Technical Literature contains details for weathertightness for buildings within the scope of NZBC Acceptable Solution E2/AS1.

15.3 Weathertightness details that are developed by the designer are outside the scope of this Certificate and are the responsibility of the designer for compliance with the NZBC.

## Internal Moisture

### Condensation – Housing and Small Buildings

16.1 The risk of condensation forming on the interior side of the Multicell sheets will be minimal where adequate ventilation and space temperature is provided. In high moisture areas such as spa pool enclosures there is the risk of condensation forming in the cell which can lead to mould. In these situations, following the manufacturer's instructions for drainage and ventilation of the cells is important. The performance of Danpalon Compact will be similar to single glazing and therefore condensation will form in certain conditions. Provision should be made for the collection of condensation.

### Human Impact Safety

17.1 Danpalon Multicell and Danpalon Compact when used as glazing within 2000 mm of the floor level provide adequate and safe resistance to human impact.

17.2 In non-Housing applications where Danpalon Compact is used, the performance requirements of NZBC F2.3.2 must be considered. If it is possible for the sheets to be mistaken for an unimpeded path of travel the sheets must be marked. Generally the need for marking is reduced by the strong vertical joint lines at 600 mm centres but each situation must be considered by designers.

### Natural Light

18.1 Danpalon Multicell and Danpalon Compact are suitable for use to provide natural light as required by NZBC Clause G7.3.1. Danpalon Compact may also be used to provide visual awareness of the outside environment as required by NZBC Clause G7.3.2.

### Water Supplies

19.1 The collection of drinking water from Danpalon roofs has not been assessed and is outside the scope of this Certificate.

### Energy Efficiency

20.1 The thermal insulation properties of the Danpalon Polycarbonate Glazing System are as given in Table 5.

**Table 5: Thermal Insulation Properties**

	<b>K-value (w/m<sup>2</sup>k)</b>	<b>R-value (m<sup>2</sup>o/w)</b>
Danpalon Multicell 8 mm	2.46	0.40
Danpalon Multicell 10 mm	2.11	0.47
Danpalon Multicell 16 mm	1.53	0.65
Danpalon Compact 4 mm	5.2	0.19

### Housing and Small Buildings (less than 300m<sup>2</sup>)

20.2 An unconditioned space attached to the building (e.g. atrium or conservatory) may be considered outside the

building thermal envelope providing there is a separating wall, roof or floor between it and the rest of the building. In this situation, there are no limitation on the area, roof or wall, of Danpalon used.

20.3 The wall, roof or floor (inclusive of transparent components) between the unconditioned space and the rest of the building forms part of the building thermal envelope and must meet the minimum requirements for thermal resistance.

20.4 Danpalon will assist in meeting the thermal design requirements of buildings as set out in NZS 4218. The building envelope for Housing must be designed and constructed to ensure the Building Performance Index (BPI) does not exceed 0.13 kWh in a warm location and 0.12 kWh in a cool location.

20.5 In situations where Danpalon is used as wall glazing and is less than 30% of the total wall area, the schedule method of thermal envelope design may be used. In all other situations of use, i.e. walls and roof, the calculation or Modelling methods of design from NZS 4218 must be used.

### Solar contribution coefficient

20.6 The solar factor is the ratio between the total energy and the incident solar energy. Indicative values are given in Table 6.

**Table 6: Solar Contribution**

	Clear	Opal	Bronze	Green
Danpalon Multicell 8 mm	0.89	0.66	0.66	-
Danpalon Multicell 10 mm	0.69	0.58	0.48	-
Danpalon Multicell 16 mm	0.49	0.27	0.18	-
Danpalon Compact	0.81	-	-	0.74

### Resistance to Chemicals

21.1 The chemical resistance of the polycarbonate is indicated in Table 7. Where severe exposure is possible, testing is recommended.

**Table 7: Resistance to Chemicals**

Chemical Agent	Resistance
Diluted acids	Good
Concentrated acids	Average to good
Alkalis	Weak to average
Organic solvents - alcohol	Good
Chlorinated hydrocarbons	Weak
Aromatic hydrocarbons	Weak
Aliphatic hydrocarbons	Weak
Lubricating oils	Good
Detergents	Good

## Installation Information

### Installation Skill Level Requirements

22.1 Installation of Danpalon sheets and accessories supplied by Everlight NZ Ltd must be completed by tradespersons with an understanding of Danpalon installation, in accordance with the instructions given in the Technical Literature and this Certificate.

### General

22.2 The surfaces of Danpalon must be protected while working or cutting. Danpalon Multicell ends must have antistat tape applied before end caps and flashings are installed.

### Cutting

22.3 Sheets shall be cut using a fine tooth handsaw, circular saw with a fine tooth metal blade at low speeds or an abrasive wheel. Cutting produces dust which should be removed either with a vacuum cleaner or an air gun.

### Fixing

22.4 The fixing of Danpalon sheets is relatively straight forward and requires no specialist skills. The correct sequence for each profile must be followed. The correct fastener type, fixings and connector must be used relative to the wind and snow loading. Information provided by Everlight NZ Ltd must be followed for installation.

### Health and Safety

23.1 At all times, reliance must never be placed on Danpalon sheets supporting loads generated by workers walking on a roof. These loads must always be supported with planks and the like and directly transferred to the supporting purlins and structure. Wear safety equipment when cutting.

## Basis of Appraisal

The following is a summary of the technical investigations carried out:

### Tests

24.1 BRANZ expert opinion on NZBC E2 code compliance for the Danpalon Polycarbonate Glazing System was based on testing and/or evaluation of all details within the scope of this Certificate. The Danpalon Polycarbonate Glazing System was tested by BRANZ to AS/NZS 4284. The testing was completed in two stages; the first being the static AS/NZS 4284 test, the second being the dynamic AS/NZS 4284 test. The testing assessed the performance of the standing seam joints between sheets for both roofs and walls. In addition to the weathertightness test, the details contained within the Technical Literature have been reviewed, and an opinion has been given by BRANZ technical experts that the system will meet the performance requirements of the New Zealand Building Code External Moisture Clause E2, when used within the scope of this Certificate.

### Other Investigations

25.1 Danpalon is the subject of CSTB Technical Advice 2/03-1048 (France) and Technical Regulations Book No 2B-0 to 2B-5. CSTB is a member of UEATC, EOTA and CIB. Internet: [www.cstb.fr](http://www.cstb.fr). Properties relating to structural loading, hail and soft body impact resistance, thermal insulation, solar contribution and chemical resistance have been reviewed by BRANZ experts and found to be satisfactory.

25.2 The durability of the Danpalon Polycarbonate Glazing System has been assessed by BRANZ experts. Roof and wall installations approximately 15 years old in Australia where inspected by BRANZ. The use of polycarbonate glazing internationally has been noted together with the use of over 500,000 m<sup>2</sup> of Danpalon skylight roofing in France since 1987.

25.3 BRANZ technical experts have also provided opinions on structural loading, hail impact, human impact safety, fire safety, internal moisture, energy efficiency and solar contribution.

25.4 Danpalon is also the subject of an ICC ES Legacy Report ER-4798, Internet: [www.icc-es.org](http://www.icc-es.org).

## Quality

26.1 The manufacture of the Danpalon Polycarbonate Glazing System has not been examined by BRANZ, but details regarding the quality and composition of the materials used were obtained by BRANZ and found to be satisfactory.

26.2 The manufacturing is carried out continuously, at the factory of the DAN PAL company in Israel under ISO 9001 certification and the main operations are:

- Reception and storage of the raw materials in granulated form.
- Extrusion.
- Co-extrusion on the exterior side.
- Cooling.
- Laying of the protective film on both sides to avoid scratching during handling.
- Cut to the required length and conditioning.

ISO 9001 Certification by the Standards Institute of Israel, License No. 31129.

## Responsibilities

27.1 The design of the supporting structure is the responsibility of the designer.

27.2 The quality of the materials supplied by Everlight NZ Ltd are the responsibility of Everlight NZ Ltd.

27.3 The quality of installation on site of materials supplied by Everlight NZ Ltd and the building contractor is the responsibility of the installer.

27.4 Designers are responsible for the building design, and building contractors are responsible for the quality of installation of Danpalon sheets in accordance with the instructions of Everlight NZ Ltd.

27.5 Building owners are responsible for the maintenance of Danpalon Roof and Wall Cladding in accordance with the instructions of Everlight NZ Ltd.

## Sources of Information

- AS/NZS 1562.3: 1996 Design and installation of sheet roof and wall cladding
- AS/NZS 4040.4: 1996 Methods of testing sheet roof and wall cladding
- AS/NZS 4284: 1995 Testing of building facades.
- NZS 3602:2003 Timber and wood-based products for use in building.
- NZS 3604:1999 Timber framed buildings.
- NZS 4203: 1992 General structural design and design loadings for buildings.
- NZS 4214: 2006 Methods of determining the total thermal resistance of parts of buildings.
- NZS 4218: 1996 Energy Efficiency – Housing and small building envelope
- NZS 4218: 2004 Energy Efficiency - Small building envelope.
- NZS 4223 Part 3:1993 Glazing in buildings.
- Compliance Document for the New Zealand Building Code External Moisture Clause E2, Department of Building Housing, Third Edition July 2005.
- New Zealand Building Code Handbook and Approved Documents, Building Industry Authority, 1992.
- The Building Regulations 1992, up to, and including October 2004 Amendment.



**In the opinion of BRANZ, the Danpalon Polycarbonate Glazing System - Housing is fit for purpose and will comply with the Building Code to the extent specified in this Certificate provided it is used, designed, installed and maintained as set out in this Certificate.**

**The Appraisal Certificate is issued only to the Certificate Holder, Everlight NZ Ltd, and is valid until further notice, subject to the Conditions of Certification.**

## Conditions of Certification

1. This Certificate:
  - a) relates only to the product as described herein;
  - b) must be read, considered and used in full together with the technical literature;
  - c) does not address any Legislation, Regulations, Codes or Standards, not specifically named herein;
  - d) is copyright of BRANZ.
2. The Certificate Holder:
  - a) continues to have the product reviewed by BRANZ;
  - b) shall notify BRANZ of any changes in product specification or quality assurance measures prior to the product being marketed;
  - c) abides by the BRANZ Appraisals Services Terms and Conditions.
3. The product and the manufacture are maintained at or above the standards, levels and quality assessed and found satisfactory by BRANZ.
4. BRANZ 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 Certificate Holder.
5. Any reference in this Certificate to any other publication shall be read as a reference to the version of the publication specified in this Certificate.

For BRANZ

P Robertson  
Chief Executive

Date of issue: