Dimond Durolite®

Product Technical Statement: 101193

miproducts

Natural lighting translucent sheeting to match metal roof and wall profiles

View miproducts listing





Level of assurance needed to demonstrate NZ Building Code Compliance

MEDIUM

Supporting documentation should include technical information by manufacturer and either an independent assessment or reference to an industry-based scheme

Dimond confirms that this minimum level of assurance has been met or exceeded by the following:
NZ Metal Roofing Manufacturers asso inc (NZMRM)
Code of Practice

masterspec partner

Technical Statement

Product Description

Durolite provides an advanced natural lighting solution for roofs and walls with unparalleled strength and durability for commercial applications.

Scope of use

Fixed onto roof purlins and wall girts to allow Natural lighting to enter the building within steel roof sheets decreasing the need to use electric lights

Manufactured in all Dimond Profiles.

Available in sheet weights 1.1mm to 2.2mm thick depending on wind load and purlin centres.

Fireguard sheets available to meet spread of flame on internal surface group 3. Called FG3. FG3 is Bromine free.

Heat guard 4 or Heat guard 8 can be used to reduce heat transmission coming without too much lose of light.

New Zealand Building Code (NZBC)

The product will, if employed in accordance with the supplier's installation and maintenance requirements, assist with meeting the following provisions of the building code:

- **Clause B1 Structure:** Performance B1.3.3
- **Clause B2 Durability:** Performance B2.3.1, B2.3.1(b)
- **Clause E2 External moisture:** Performance E2.3.1, E2.3.2
- **Clause F2 Hazardous building materials:** Performance F2.3.1
- **Clause G7 Natural light:** Performance G7.3.1, G7.3.2

Evidence

The product meets the requirements set out in the following documents, or relevant parts of cited standards within the documents:

Dimond Natural Lighting translucent sheeting products are manufactured to the requirements of AS/NZS4256.3.1994 in a range of profiles, sheet thicknesses and sheet compositions to meet the light transmission,wind load and durability requirements for their intended use as Natural Lighting in roofs, walls and fences of AS/NZS 4257. Specific grades of product can be manufactured to support concentrated foot traffic loads, but the standard product range is not intended to support foot traffic.

Past history of Durolite use in New Zealand indicates that provided the Dimond Natural Lighting Systems are designed, handled, stored, used and maintained in accordance with the guidelines given in this manual they will meet the relevant performance criteria in Clauses B1, B2, E2 and G7.

Fire retardant Surface finish properties have been tested to ISO 5660 and achieve a group number in accordance with NZBC verification method C/ VM2 appendix.

Supporting Evidence

The product has and can make available the following additional evidence to support the above statements:

NZ Metal Roofing Manufacturers asso inc (NZMRM)
Code of Practice

Use in Service History

Over 20 years as a gel coated sheet.

Product Criteria

Company Contact Details

Dimond Roofing

Company:	Dimond
Physical Address:	575 Great South Road Penrose AUCKLAND
Postal Address:	Private Bag 92803 Penrose AUCKLAND
Email:	roofspec@dimond.co.nz
Website:	http://www.dimond.co.nz/

Dimond Durolite®

Product Technical Statement: 101193

miproducts

Design requirements

Durolite is intended to be used as roofing or wall cladding natural lighting strips to allow natural lighting to pass through and reduce the reliance on needing to switch the lights on inside all buildings. Usually run from ridge to gutter in continuous lengths and end lapped if lengths are over 20m. As it is run in our full range of profiles, it can be side lapped over the metal profiles to provide a weather tight joint. Can also serve as a feature wall either laid vertically or horizontally which when back lit, provides a different aesthetic look at night time to a wall. Clear or white tints available.

As it is made from glass reinforced polyester resin, protected with a 100 micron gel coat top finish it can be used in all environments right up the very severe marine and on wharfs. Suitable for very corrosive areas such as battery charging bays, galvanising plants and fertiliser works.

Installation requirements

Before installation check the purlins to ensure they are free of sharp protrusions that may come into contact with the sheets. Ensure purlin spacings are not greater than limits for that profile. The Durolite can be fixed to a midspan support to increase the span. Where the Durolite sheets are used over safety mesh or netting, over every purlin a purlin protection strip must be used to provide protection to the sheet under side. Durolite side laps overlap the adjoining metal sheets on each side. All side laps must lap over the profile rib. Durolite should run from ridge to gutter in continuous lengths without end laps, but where necessary end laps should be fully sealed, using a continuous bead neutral curing silicone sealant, across the sheet width and be minimum of 200mm long. Ends of sheet under the ridge or flashings need a stop end formed using a steel folded angle fixed and sealed to the sheet end. 8 to 10mm dia oversized holes should be drilled before fixings are used.

Maintenance requirements

Regular washing of the top surface to remove lichen, moss and dirt build up will ensure max. light transmission over the life of the product. Can be lightly water blasted.

Warrantees

full warranted in a commercial situation for 25 years.

http://www.dimond.co.nz/products/durolite#

Company Product Information

Environmental

Disposal of old sheet is best achieved by dumping in land fill.

Relationships

Member of New Zealand Green Building Council

New Zealand Made

Date last validated: **16 September 2019**

Date last updated: **16 September 2019**

Disclaimer: The Product Technical Statement (PTS) template is copyright to Construction Information Limited. However the content of this PTS is the responsibility of the product manufacturer/supplier. Refer to the miproducts Terms and Conditions