

IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1). THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA



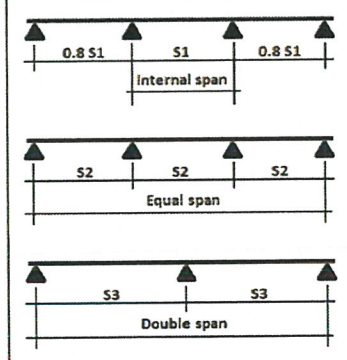
#### Pressures

| STRAMIT MONOCLAD® CLADDING - STRENGTH LIMIT STATE CAPACITY (CYCLONIC) |                              |           |                             |      |      |      |      |      |  |
|-----------------------------------------------------------------------|------------------------------|-----------|-----------------------------|------|------|------|------|------|--|
| pressure (kPa) at the spans (mm) shown                                |                              |           |                             |      |      |      |      |      |  |
| Timber Batten/Steel                                                   | BMT fasteners (mm) per sheet | span-type | Roof Sheeting (Crest fixed) |      |      |      |      |      |  |
|                                                                       |                              |           | 450                         | 600  | 900  | 1200 | 1500 | 1800 |  |
|                                                                       |                              |           | 8.64                        | 8.15 | 7.27 | 5.69 | 3.85 | 2.17 |  |
|                                                                       |                              |           | 7.85                        | 7.41 | 6.61 | 5.18 | 3.50 | 1.97 |  |
| 0.42                                                                  | 4 with internal              | equal     | 7.85                        | 7.41 | 6.61 | 5.18 | 3.50 | 1.97 |  |
|                                                                       |                              | double    | 6.91                        | 6.52 | 5.72 | 4.55 | 3.08 | 1.73 |  |
|                                                                       | 4 with cyclone caps          | equal     | 10.00                       | 9.00 | 8.00 | 7.60 | 5.66 | 3.37 |  |
|                                                                       |                              | double    | 9.09                        | 8.09 | 7.09 | 6.91 | 5.33 | 3.97 |  |
| 0.48                                                                  | 4 with internal              | equal     | 10.00                       | 9.00 | 8.00 | 7.60 | 5.66 | 3.37 |  |
|                                                                       |                              | double    | 9.09                        | 8.09 | 7.09 | 6.91 | 5.33 | 3.97 |  |
|                                                                       | 4 with cyclone caps          | equal     | 10.00                       | 9.00 | 8.00 | 7.60 | 5.66 | 3.37 |  |
|                                                                       |                              | double    | 9.09                        | 8.09 | 7.09 | 6.91 | 5.33 | 3.97 |  |

| STRAMIT MONOCLAD® CLADDING - STRENGTH LIMIT STATE CAPACITY (CYCLONIC) |                              |           |                             |      |      |      |      |      |  |
|-----------------------------------------------------------------------|------------------------------|-----------|-----------------------------|------|------|------|------|------|--|
| pressure (kPa) at the spans (mm) shown                                |                              |           |                             |      |      |      |      |      |  |
| 0.75mm Cyclonic Steel Batten                                          | BMT fasteners (mm) per sheet | span-type | Roof Sheeting (Crest fixed) |      |      |      |      |      |  |
|                                                                       |                              |           | 450                         | 600  | 900  | 1200 | 1500 | 1800 |  |
|                                                                       |                              |           | 8.64                        | 8.15 | 5.96 | 4.47 | 3.57 | 2.17 |  |
|                                                                       |                              |           | 7.85                        | 7.41 | 5.42 | 4.06 | 3.25 | 1.97 |  |
| 0.42                                                                  | 4 with internal              | equal     | 7.85                        | 7.41 | 5.42 | 4.06 | 3.25 | 1.97 |  |
|                                                                       |                              | double    | 6.91                        | 6.52 | 4.77 | 3.57 | 2.86 | 1.73 |  |
|                                                                       | 4 with cyclone caps          | equal     | 10.00                       | 8.94 | 5.96 | 4.47 | 3.57 | 2.98 |  |
|                                                                       |                              | double    | 9.09                        | 8.13 | 5.42 | 4.06 | 3.25 | 2.71 |  |
| 0.48                                                                  | 4 with internal              | equal     | 10.00                       | 8.94 | 5.96 | 4.47 | 3.57 | 2.98 |  |
|                                                                       |                              | double    | 9.09                        | 8.13 | 5.42 | 4.06 | 3.25 | 2.71 |  |
|                                                                       | 4 with cyclone caps          | equal     | 10.00                       | 8.94 | 5.96 | 4.47 | 3.57 | 2.98 |  |
|                                                                       |                              | double    | 9.09                        | 8.13 | 5.42 | 4.06 | 3.25 | 2.71 |  |

**note:**  
Shaded areas are not foot trafficable when tested in accordance with AS1562.1:2018 and AS4040-1992 parts 0 and 1.

#### Span configurations



#### Span tables

| STRAMIT MONOCLAD® CLADDING                                             |       |                     |                |                              |       |        |                    |       |        |                               |       |        |                    | C <sub>p,e</sub> = -0.9 |        |  |             |  |  |
|------------------------------------------------------------------------|-------|---------------------|----------------|------------------------------|-------|--------|--------------------|-------|--------|-------------------------------|-------|--------|--------------------|-------------------------|--------|--|-------------|--|--|
| MAXIMUM SPAN CHART (mm)                                                |       |                     |                |                              |       |        |                    |       |        |                               |       |        |                    |                         |        |  | (h/d ≤ 0.5) |  |  |
| Crest fixed roof sheeting - four fasteners per sheet with cyclone caps |       |                     |                |                              |       |        |                    |       |        |                               |       |        |                    |                         |        |  |             |  |  |
| TC                                                                     | h     | local press. factor | pressure (kPa) | Timber Battens / Steel 1.5mm |       |        |                    |       |        | 0.75mm Cyclonic Steel Battens |       |        |                    |                         |        |  |             |  |  |
|                                                                        |       |                     |                | 0.42mm thick (bmt)           |       |        | 0.48mm thick (bmt) |       |        | 0.42mm thick (bmt)            |       |        | 0.48mm thick (bmt) |                         |        |  |             |  |  |
|                                                                        |       |                     | Strength       | internal                     | equal | double | internal           | equal | double | internal                      | equal | double | internal           | equal                   | double |  |             |  |  |
| 1&2                                                                    | ≤ 10m | 1.0                 | 5.16           | 1250                         | 1200  | 1050   | 1600               | 1500  | 1350   | 1050                          | 950   | 800    | 1050               | 950                     | 850    |  |             |  |  |
|                                                                        |       | 1.5                 | 6.61           | 1000                         | 900   | 550    | 1350               | 1250  | 1100   | 800                           | 700   | 550    | 800                | 750                     | 650    |  |             |  |  |
|                                                                        |       | 2.0                 | 8.06           | 600                          | -     | -      | 1100               | 1000  | -      | 600                           | -     | -      | 650                | 600                     | -      |  |             |  |  |
|                                                                        |       | 3.0                 | 10.97          | -                            | -     | -      | -                  | -     | -      | -                             | -     | -      | -                  | -                       | -      |  |             |  |  |
| 1&2                                                                    | ≤ 5m  | 1.0                 | 4.54           | 1350                         | 1300  | 1200   | 1750               | 1650  | 1500   | 1150                          | 1050  | 950    | 1150               | 1050                    | 950    |  |             |  |  |
|                                                                        |       | 1.5                 | 5.81           | 1150                         | 1050  | 900    | 1500               | 1400  | 1250   | 900                           | 800   | 700    | 900                | 850                     | 750    |  |             |  |  |
|                                                                        |       | 2.0                 | 7.09           | 900                          | 700   | -      | 1250               | 1150  | 1000   | 700                           | 600   | -      | 750                | 700                     | 600    |  |             |  |  |
|                                                                        |       | 3.0                 | 9.64           | -                            | -     | -      | 900                | -     | -      | -                             | -     | -      | 500                | -                       | -      |  |             |  |  |
| 2.5                                                                    | ≤ 10m | 1.0                 | 3.11           | 1600                         | 1350  | 1350   | 1800               | 1700  | 1700   | 1550                          | 1350  | 1350   | 1700               | 1550                    | 1350   |  |             |  |  |
|                                                                        |       | 1.5                 | 3.99           | 1450                         | 1350  | 1300   | 1800               | 1700  | 1650   | 1350                          | 1200  | 1050   | 1350               | 1200                    | 1050   |  |             |  |  |
|                                                                        |       | 2.0                 | 4.87           | 1300                         | 1250  | 1100   | 1700               | 1600  | 1450   | 1100                          | 1000  | 850    | 1100               | 1000                    | 850    |  |             |  |  |
|                                                                        |       | 3.0                 | 6.62           | 1000                         | 850   | 550    | 1350               | 1250  | 1100   | 800                           | 700   | 550    | 800                | 750                     | 650    |  |             |  |  |
| 3&4                                                                    | ≤ 5m  | 1.0                 | 2.83           | 1650                         | 1350  | 1350   | 1800               | 1700  | 1700   | 1650                          | 1350  | 1350   | 1800               | 1700                    | 1500   |  |             |  |  |
|                                                                        |       | 1.5                 | 3.63           | 1500                         | 1350  | 1350   | 1800               | 1700  | 1700   | 1450                          | 1350  | 1150   | 1450               | 1350                    | 1150   |  |             |  |  |
|                                                                        |       | 2.0                 | 4.43           | 1400                         | 1300  | 1200   | 1750               | 1650  | 1550   | 1200                          | 1100  | 950    | 1200               | 1100                    | 950    |  |             |  |  |
|                                                                        |       | 3.0                 | 6.02           | 1100                         | 1000  | 800    | 1450               | 1350  | 1200   | 850                           | 800   | 650    | 850                | 800                     | 700    |  |             |  |  |

| STRAMIT MONOCLAD® CLADDING                                             |       |                     |                |                              |       |        |                    |       |        |                               |       |        |                    | C <sub>p,e</sub> = -1.3 |        |  |             |  |  |
|------------------------------------------------------------------------|-------|---------------------|----------------|------------------------------|-------|--------|--------------------|-------|--------|-------------------------------|-------|--------|--------------------|-------------------------|--------|--|-------------|--|--|
| MAXIMUM SPAN CHART (mm)                                                |       |                     |                |                              |       |        |                    |       |        |                               |       |        |                    |                         |        |  | (h/d ≥ 1.0) |  |  |
| Crest fixed roof sheeting - four fasteners per sheet with cyclone caps |       |                     |                |                              |       |        |                    |       |        |                               |       |        |                    |                         |        |  |             |  |  |
| TC                                                                     | h     | local press. factor | pressure (kPa) | Timber Battens / Steel 1.5mm |       |        |                    |       |        | 0.75mm Cyclonic Steel Battens |       |        |                    |                         |        |  |             |  |  |
|                                                                        |       |                     |                | 0.42mm thick (bmt)           |       |        | 0.48mm thick (bmt) |       |        | 0.42mm thick (bmt)            |       |        | 0.48mm thick (bmt) |                         |        |  |             |  |  |
|                                                                        |       |                     | Strength       | internal                     | equal | double | internal           | equal | double | internal                      | equal | double | internal           | equal                   | double |  |             |  |  |
| 1&2                                                                    | ≤ 10m | 1.0                 | 6.45           | 1050                         | 900   | 600    | 1350               | 1250  | 1100   | 800                           | 700   | 600    | 850                | 750                     | 650    |  |             |  |  |
|                                                                        |       | 1.5                 | 8.55           | 450                          | -     | -      | 1050               | 950   | -      | 450                           | -     | -      | 600                | 500                     | -      |  |             |  |  |
|                                                                        |       | 2.0                 | 10.64          | -                            | -     | -      | -                  | -     | -      | -                             | -     | -      | -                  | -                       | -      |  |             |  |  |
|                                                                        |       | 3.0                 | 11.93          | -                            | -     | -      | -                  | -     | -      | -                             | -     | -      | -                  | -                       | -      |  |             |  |  |
| 1&2                                                                    | ≤ 5m  | 1.0                 | 5.67           | 1200                         | 1050  | 900    | 1500               | 1400  | 1250   | 950                           | 850   | 700    | 950                | 850                     | 750    |  |             |  |  |
|                                                                        |       | 1.5                 | 7.51           | 800                          | 550   | -      | 1200               | 1100  | 950    | 650                           | 550   | -      | 700                | 650                     | 500    |  |             |  |  |
|                                                                        |       | 2.0                 | 9.35           | -                            | -     | -      | 950                | -     | -      | -                             | -     | -      | 500                | -                       | -      |  |             |  |  |
|                                                                        |       | 3.0                 | 10.49          | -                            | -     | -      | -                  | -     | -      | -                             | -     | -      | -                  | -                       | -      |  |             |  |  |
| 2.5                                                                    | ≤ 10m | 1.0                 | 3.89           | 1450                         | 1350  | 1300   | 1800               | 1700  | 1700   | 1350                          | 1250  | 1100   | 1350               | 1250                    | 1100   |  |             |  |  |
|                                                                        |       | 1.5                 | 5.16           | 1250                         | 1200  | 1050   | 1600               | 1500  | 1350   | 1050                          | 950   | 800    | 1050               | 950                     | 850    |  |             |  |  |
|                                                                        |       | 2.0                 | 6.42           | 1050                         | 900   | 600    | 1400               | 1250  | 1100   | 800                           | 700   | 600    | 850                | 750                     | 650    |  |             |  |  |
|                                                                        |       | 3.0                 | 7.20           | 900                          | 650   | -      | 1250               | 1150  | 1000   | 700                           | 600   | -      | 750                | 700                     | 550    |  |             |  |  |
| 3&4                                                                    | ≤ 5m  | 1.0                 | 3.54           | 1550                         | 1350  | 1350   | 1800               | 1700  | 1700   | 1500                          | 1350  | 1200   | 1500               | 1350                    | 1200   |  |             |  |  |
|                                                                        |       | 1.5                 | 4.69           | 1350                         | 1250  | 1150   | 1700               | 1600  | 1500   | 1150                          | 1050  | 900    | 1150               | 1050                    | 900    |  |             |  |  |
|                                                                        |       | 2.0                 | 5.85           | 1150                         | 1050  | 850    | 1500               | 1400  | 1250   | 900                           | 800   | 700    | 900                | 850                     | 750    |  |             |  |  |
|                                                                        |       | 3.0                 | 6.55           | 1000                         | 900   | 550    | 1350               | 1250  | 1100   | 800                           | 700   | 550    | 800                | 750                     | 650    |  |             |  |  |

#### Notes covering basis of DTC (Relevant test reports, etc)

- Tables are based on an extensive LHL test program (Test Report No.s TS662, TS688, TS701, TS714 & TS720) carried out by James Cook University Cyclone Testing Station between June 2007 and January 2009 in accordance with the BCA of the time (equivalent to L-H-L within NCC 2019).
- For information on durability, slope and other details and limitations please refer to the Stramit Monoclad® Product Technical Manual or the Stramit® Roof Slope Guide.
- Tabulated values may be interpolated but not extrapolated.
- For other values of 'h', spans can be determined using the limit state capacity tables on the left.

#### \*Design Engineer's Certification

Name: Yuri Arguedas  
Registration Number: 845724  
Date: 21/05/20  
Signature:   
\*registered as a structural engineer in Australia

#### \*\*Certifying Engineer's Certification

Name: Adam James  
Registration Number: 26968ES  
Date: 14/08/2020  
Signature:   
\*\*registered as a structural engineer in Northern Territory

#### Product name

### STRAMIT MONOCLAD® ROOFING

#### Product Description

Stramit Monoclad® is manufactured from G550 colour coated steel or zinc/aluminium or aluminium/zinc/magnesium alloy coated steel. In some locations galvanised (Z450) may also be available.

#### Manufacturer's Name

Stramit Building Products  
57-71 Platinum St. Crestmead QLD 4132

#### Design Criteria

Spans are based on the combinations of the following factors, for Region C, in accordance with AS/NZS 1170.2:2011 (inc. Amendment No 1,2,3,4 & 5)

Strength: Regional wind speed  $V_{500} = 69\text{m/s}$

Serviceability: Regional wind speed  $V_{25} = 47\text{m/s}$

Terrain / Height Multiplier ( $M_{z,ca}$ ): as per table 4.1 in AS/NZS1170.2:2011

| TC  | 'h' up to 5m | 'h' up to 10m |
|-----|--------------|---------------|
| 1&2 | 1.05         | 1.12          |
| 2.5 | 0.87         | 0.92          |
| 3&4 | 0.83         | 0.83          |

Wind direction multiplier:  $M_d = 1.0$

Shielding multiplier:  $M_s = 1.0$

Topographic multiplier:  $M_t = 1.0$

Dynamic response factor:  $C_{dyn} = 1.0$

Combination factor:  $K_c = 0.9$

Internal pressure coefficient:  $C_{p,i} = +0.2$  service

Internal pressure coefficient:  $C_{p,i} = +0.7$  strength

External pressure coefficients:

$C_{p,e} = -0.9$  for  $h/d \leq 0.5$ , and for horizontal distance from windward edge of the roof up to 'h'

$C_{p,e} = -1.3$  for  $h/d \geq 1.0$ , and for horizontal distance from windward edge of the roof up to '0.5h'

TC - Terrain category, h - Average roof height, d - Building length or depth, and local pressure factors as defined in AS/NZS1170.2:2011 (including amendment 1,2,3,4 & 5)

Test factor  $k_t = 1.21$  in accordance with Table B1 of AS/NZS 1170.0:2002 (inc. Amdt 1,2,3,4 & 5)

#### Limitations:

- INTERNAL SPANS SHALL HAVE BOTH END SPANS 20% SHORTER THAN THE VALUES IN THE SPAN CONFIGURATION TABLES.

- This DTC sheet is for roof applications only.

- Foot traffic limitations as indicated.

- The maximum roof pitch is: 25°

- Cladding spans are based on the use of screws tested and specified on this data sheet for each support type and thickness.

- The maximum permissible overhangs from screwline are 100mm for free edge, and 300mm for a stiffened edge.

- When using cyclonic steel battens, the maximum batten spacing may be critical and limit the span of the cladding. It is essential that this sheet is read in conjunction with the relevant deemed to comply information for the batten product adopted.

#### Accepted for Inclusion

DTCM ref: M/715

Chairman's Signature:

Chairman's Name: Paul Nowland

Date of Approval: 18/09/2020 Expiry Date: 18/09/2025