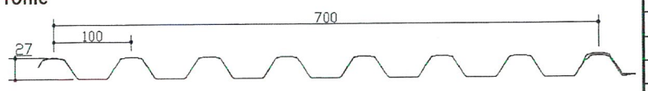
IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.

Profile



Fastener locations

Pressures

STRAMIT LONGSPAN® CLADDING - STRENGTH LIMIT STATE CAPACITY (CYCLONIC)

pressure (kPa) at the spans (mm) shown

Timber Batten/Steel ≥ 1.5mm

BMT (mm)	fasteners per sheet	span-type	Roof Sheeting (Crest fixed) 450	600	900	1200	1500	1800
0.42	5 with cyclone caps	internal	10.00	9.68	8.72	6.20	4.54	3.28
		equal	9.09	8.80	7.93	5.64	4.13	2.98
		double	8.00	7.74	6.98	4.96	3.63	2.62
0.48	5 with cyclone caps	internal	10.81	10.57	10.00	6.37	5.29	4.54
		equal	9.83	9.61	9.09	5.79	4.81	4.13
		double	8.65	8.46	8.00	5.10	4.23	3.63

STRAMIT LONGSPAN® CLADDING - STRENGTH LIMIT STATE CAPACITY (CYCLONIC)

pressure (kPa) at the spans (mm) shown

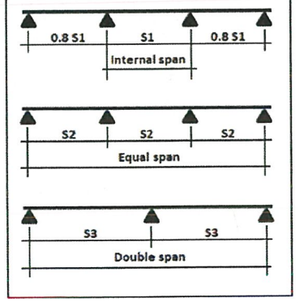
0.75mm Cyclonic Steel Battens

BMT (mm)	fasteners per sheet	span-type	Roof Sheeting (Crest fixed) 450	600	900	1200	1500	1800
0.42	5 with cyclone caps	internal	10.00	9.68	8.09	6.07	4.54	3.28
		equal	9.09	8.80	7.35	5.51	4.13	2.98
		double	8.00	7.74	6.47	4.85	3.63	2.62
0.48	5 with cyclone caps	internal	10.81	10.57	8.09	6.07	4.85	4.04
		equal	9.83	9.61	7.35	5.51	4.41	3.67
		double	8.65	8.46	6.47	4.85	3.88	3.23

note:

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

Span configurations

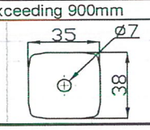


STRAMIT LONGSPAN® RECOMMENDED FASTENINGS (CYCLONIC FIXING)

STEEL 0.75mm thick	No 14 - 10 x 50mm Hex Head Type 17 screw + sealing washer + caps
STEEL ≥ 1.5mm thick	No 14 - 10 x 50mm Hex Head Self-drilling and tapping screw + sealing washer + caps
HARDWOOD (F11/J2/JD2 or stronger)	No 14 - 10 x 65mm Hex Head Type 17 screw + sealing washer + caps
SOFTWOOD (F7/F8/J3/JD4 or stronger)	No 14 - 10 x 75mm Hex Head Type 17 screw + sealing washer + caps
Side Laps	No 8 - 15 x 15mm Hex Head screw + sealing washer for spans exceeding 900mm

All fastening screws should conform to AS3566 Class 4.

Caps: Steel Caps (Cyclonic washers) assembly, complete with sealing washer. Use steel caps, minimum 38mm long, 35 mm wide (across rib) and 1mm thick, G300 material. Data below not valid for caps which do not restrain the sides of the profile.



Span Tables

STRAMIT LONGSPAN® CLADDING MAXIMUM SPAN CHART (mm) — $C_{p,e}$ = -0.9 (h/d ≤ 0.5)

Crest fixed roof sheeting - **five** fasteners per sheet with cyclone caps

TC	h	local press. factor	pressure (kPa)	Timber Battens / Steel 1.5mm: 0.42mm thick (bmt)			0.48mm thick (bmt)			0.75mm Cyclonic Steel Battens: 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	1350	1250	1150	1550	1350	1150	1350	1250	1100	1400	1250	1100
		1.5	6.61	1150	1050	950	1150	1100	1000	1100	1000	850	1100	1000	850
		2.0	8.06	950	850	-	1050	950	850	900	750	-	900	800	650
		3.0	10.96	-	-	-	-	-	-	-	-	-	-	-	-
1&2 2.5	≤ 5m ≤ 10m	1.0	4.54	1500	1400	1250	1800	1600	1350	1500	1400	1250	1600	1450	1250
		1.5	5.81	1250	1150	1050	1350	1150	1100	1250	1150	1000	1250	1150	1000
		2.0	7.09	1050	1000	850	1100	1050	950	1000	900	750	1000	900	800
		3.0	9.64	600	-	-	900	550	-	600	-	-	700	550	-
2.5 3&4	≤ 5m ≤ 10m	1.0	3.11	1800	1750	1650	1800	1800	1800	1800	1750	1650	1800	1800	1800
		1.5	3.99	1600	1500	1400	1800	1800	1600	1600	1500	1400	1800	1650	1450
		2.0	4.86	1400	1350	1200	1650	1450	1250	1400	1300	1150	1450	1350	1150
		3.0	6.62	1150	1050	950	1150	1100	1000	1100	1000	850	1100	1000	850
3&4	≤ 5m	1.0	2.83	1800	1750	1700	1800	1800	1800	1800	1750	1700	1800	1800	1800
		1.5	3.63	1700	1600	1500	1800	1800	1800	1700	1600	1500	1800	1800	1600
		2.0	4.43	1500	1400	1300	1800	1650	1400	1500	1400	1300	1650	1450	1300
		3.0	6.02	1200	1150	1000	1250	1150	1100	1200	1100	950	1200	1100	950

STRAMIT LONGSPAN® CLADDING MAXIMUM SPAN CHART (mm) — $C_{p,e}$ = -1.3 (h/d ≥ 1.0)

Crest fixed roof sheeting - **five** fasteners per sheet with cyclone caps

TC	h	local press. factor	pressure (kPa)	Timber Battens / Steel 1.5mm: 0.42mm thick (bmt)			0.48mm thick (bmt)			0.75mm Cyclonic Steel Battens: 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	1150	1050	950	1150	1100	1050	1100	1000	900	1100	1000	900
		1.5	8.55	900	650	-	1000	900	500	800	650	-	800	700	500
		2.0	10.64	-	-	-	550	-	-	-	-	-	550	-	-
		3.0	11.93	-	-	-	-	-	-	-	-	-	-	-	-
1&2 2.5	≤ 5m ≤ 10m	1.0	5.67	1250	1150	1050	1350	1200	1100	1250	1150	1000	1250	1150	1000
		1.5	7.51	1000	950	650	1100	1000	950	950	850	650	950	850	700
		2.0	9.35	700	-	-	950	750	-	650	-	-	700	600	-
		3.0	10.49	-	-	-	600	-	-	-	-	-	600	-	-
2.5 3&4	≤ 5m ≤ 10m	1.0	3.89	1650	1550	1400	1800	1800	1650	1650	1550	1400	1800	1700	1450
		1.5	5.16	1350	1250	1150	1550	1350	1150	1350	1250	1100	1400	1250	1100
		2.0	6.42	1150	1050	950	1150	1100	1050	1100	1050	900	1100	1050	900
		3.0	7.20	1050	950	800	1100	1050	950	1000	900	700	1000	900	750
3&4	≤ 5m	1.0	3.54	1700	1650	1500	1800	1800	1800	1700	1650	1500	1800	1800	1650
		1.5	4.69	1450	1350	1250	1700	1550	1300	1450	1350	1200	1550	1400	1200
		2.0	5.84	1250	1150	1050	1300	1150	1100	1200	1100	1000	1250	1100	1000
		3.0	6.55	1150	1050	950	1150	1100	1050	1100	1000	850	1100	1000	850

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

- Tables are based on an extensive LHL test program (Test Report No.s TS677, TS702, TS715 & TS721) carried out by James Cook University Cyclone Testing Station between December 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 Longspan® 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: 21/08/20
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 LONGSPAN® ROOFING

Product Description

Stramit Longspan® is manufactured from G550 colour coated 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} = 69m/s
Serviceability: Regional wind speed V_{25} = 47m/s
Terrain / Height Multiplier ($M_{z,cat}$) : *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 ≤ 0.5, and for horizontal distance from windward edge of the roof up to 'h'
$C_{p,e}$ = -1.3 for h/d ≥ 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 150mm for free edge, and 350mm 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: M1714
Chairman's Signature:
Chairman's Name: Paul Nowland
Date of Approval: 18/09/2020 Expiry Date: 18/09/2025