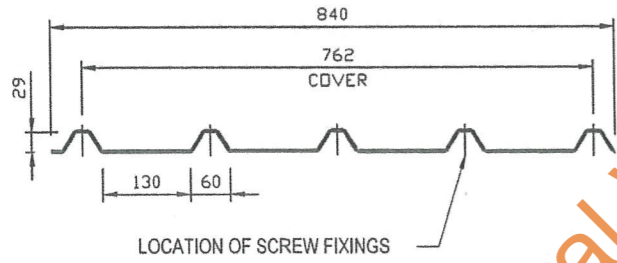


IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN HIGH WIND AREA



SCREW FIXINGS TABLE

Timber	14 - 10x65 T17
0.75 to 1.0mm steel	M6.5-12x55 roof zips
1.2 to 4mm steel	14 - 10x55 Hex head

WARNING
Product Approval Withdrawn
March 2019

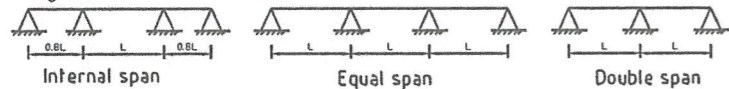
METROLL TRIMCLAD ROOF CLADDING - SERVICEABILITY LIMIT STATE DESIGN PRESSURES (kPa)									
Thickness BMT (mm)	Cyclone Washers Fitted	Span Type	Maximum Design Pressure (kPa) For Span L (mm)						
			450	600	900	1200	1500	1800	2100
0.42	No	Internal	5.08	3.96	2.64	2.03	1.50	1.14	0.89
		Equal	4.63	3.51	2.41	1.85	1.32	1.01	0.81
		Double	3.70	2.85	1.95	1.48	1.05	0.81	0.65
	Yes	Internal	-	5.46	4.04	3.32	2.26	1.65	1.04
		Equal	-	4.98	3.68	3.03	1.91	1.31	0.95
		Double	-	3.99	3.04	2.42	1.53	1.05	0.76
0.48	No	Internal	7.80	6.01	4.22	3.32	2.33	1.67	1.20
		Equal	7.11	5.48	3.85	3.03	2.00	1.44	1.09
		Double	5.69	4.50	3.15	2.42	1.60	1.15	0.87
	Yes	Internal	-	-	6.11	4.82	3.20	2.12	1.35
		Equal	-	-	5.57	4.39	2.68	1.77	1.23
		Double	-	-	4.46	3.51	2.14	1.41	0.98

METROLL TRIMCLAD ROOF CLADDING - ULTIMATE LIMIT STATE DESIGN PRESSURES (kPa)									
Thickness BMT (mm)	Cyclone Washers Fitted	Span Type	Maximum Design Pressure (kPa) For Span L (mm)						
			450	600	900	1200	1500	1800	2100
0.42	No	Internal	7.68	5.49	3.29	2.19	1.75	1.46	1.25
		Equal	7.00	4.75	2.83	2.00	1.59	1.33	1.14
		Double	5.60	3.80	2.27	1.60	1.28	1.06	0.91
	Yes	Internal	-	9.87	6.52	4.84	3.63	2.82	2.25
		Equal	-	9.00	5.92	4.41	3.21	2.50	2.05
		Double	-	7.20	4.74	3.53	2.57	2.00	1.64
0.48	No	Internal	9.87	7.31	4.74	3.46	2.71	2.22	1.86
		Equal	9.00	6.57	4.26	3.15	2.45	2.01	1.70
		Double	7.20	5.26	3.41	2.52	1.96	1.61	1.36
	Yes	Internal	-	-	8.20	6.15	4.76	3.54	2.68
		Equal	-	-	7.48	5.61	4.15	3.10	2.44
		Double	-	-	6.58	4.80	3.33	2.48	1.95

METROLL TRIMCLAD ROOF CLADDING - ULTIMATE LIMIT STATE DESIGN PRESSURES (kPa)									
Thickness BMT (mm)	Cyclone Washers Fitted	Span Type	Maximum Design Pressure (kPa) For Span L (mm)						
			450	600	900	1200	1500	1800	2100
0.42	No	Internal	7.68	5.49	3.29	2.19	1.75	1.46	1.25
		Equal	7.00	4.75	2.83	2.00	1.59	1.33	1.14
		Double	5.60	3.80	2.27	1.60	1.28	1.06	0.91
	Yes	Internal	-	9.87	6.52	4.84	3.63	2.82	2.25
		Equal	-	9.00	5.92	4.41	3.21	2.50	2.05
		Double	-	7.20	4.74	3.53	2.57	2.00	1.64
0.48	No	Internal	9.87	7.31	4.74	3.46	2.71	2.22	1.86
		Equal	9.00	6.57	4.26	3.15	2.45	2.01	1.70
		Double	7.20	5.26	3.41	2.52	1.96	1.61	1.36
	Yes	Internal	-	-	9.16	6.58	4.76	3.54	2.68
		Equal	-	-	8.35	6.00	4.15	3.10	2.44
		Double	-	-	6.68	4.80	3.33	2.48	1.95

NOTES TO TABLES

- The table values are only valid for use when the supporting steel members are high tensile steel, G450 with a thickness greater than or equal to 0.75mm or F17 Hardwood.
- Roof sheeting shall be crest fixed to supports with class 4 self drilling screws refer table at every rib in accordance with the manufacturer's recommendations. Length to suit insulation/sarking and 30mm embedment into timber. Cyclone washers, where specified, shall be "Squarelok" shaped to suit the sheeting profile.
- Side lap fasteners are required on all spans greater than 900mm and shall consist of No. 8-18 x 12mm screws at midspan.
- Italic denotes spans that exceeds foot traffic limitations.
- Maximum spans to suit foot traffic are 1350mm for 0.42BMT and 1850mm for 0.48BMT provided that the load is applied to the pans only.
- Descriptions of span types in the tables refer to the following support and geometry configurations:



Where: denotes a support location. L = span to be used in conjunction with the table.

- This table has been prepared by LCJ Engineers Pty Ltd. It is based on the LowHigh Low testing completed by the Cyclone Testing Station (CTS), School of Engineering, James Cook University. The results of this testing are outlined in the test report TS710 produced by the CTS. Ultimate cyclic wind load strength tests were NATA accredited tests.
- Load testing carried out by James Cook University, cyclone testing station, report No.ts710. Product tested to AS 4040.1, AS 4040.3 and low-high-low as per BCA specification B1.2. Tests carried out: cyclonic airbox wind test for strength. Static testing for serviceability. Buildex test report No. ELTR 1532

**Design Engineers Certification
LCJ Engineers Pty. Ltd.
Name: Daniel Johnstone
Rego Number: RPEQ 5892 / NT 58497ES
Date: 12/2/14
Signature:

**Certifying Engineers Certification
Heiner Structural Engineers Pty. Ltd.
Name: Michael Hatton
NT Rego Number: NT 52229ES
Date: 12/02/2014
Signature:

Product Name
METROLL TRIMCLAD ROOF CLADDING

Product Description
Metroll Trimclad - is manufactured from G550 colour coated steel or zinc-aluminium alloy coated (AZ150) steel. In some locations galvanised (Z450) may also be available.

Manufacturer's Name
Metroll Queensland Pty. Ltd.
t/as Metroll Darwin
81 Marjorie Street
Pinelands NT 0828
ABN 17 010 035 266



Design Criteria

- The following criteria from AS/NZS 1170.2:2002 have been used to generate the tables.
- Importance level 2 Annual probability of exceedance 1:500
 - $V_{500} = 66$ m/s, $F_c = 1.05$, $V_R = 69$ m/s.
 - $M_s = M_t = M_d = 1.0$
 - $C_{pe} =$ as per AS/NZS 1170.2
 - Height multiplier as determined by Structural Engineer
 - For local pressure factors and building aspect ratios refer to table 5.6 AS1170.2

Limitations

- This DTC sheet is for roof applications only.
- Foot traffic limitations as indicated. Refer note 4.
- Internal spans should have both end spans 20% shorter than the tabulated values.
- The maximum permissible free edge overhang is: 150mm from screw line.
- The maximum permissible stiffened edge overhang is: 300mm from screw line.
- Sheeting span can be limited by maximum batten spacing when using cyclonic steel battens.
- It is essential that the relevant deemed to comply information for the batten product is used in conjunction with this sheet.

Accepted for Inclusion

DTCM ref: m/193/1 Sheet 1 of 2

Chairman's Signature:

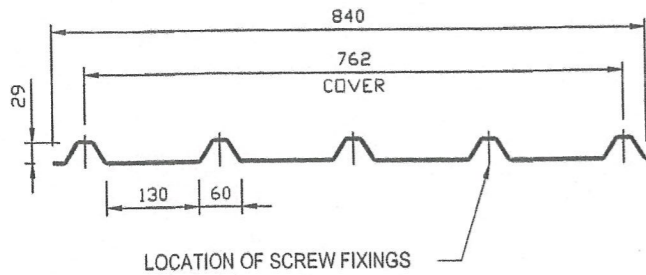
Chairman's Name:

STEVEN J. EHRLICH

Date of Approval: 13-3-14

Expiry Date: 13-3-19

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



SCREW FIXINGS TABLE

Timber	14-10x65 T17
0.75 to 1.0mm steel	M6.5-12x55 roof zips
1.2 to 4mm steel	14-10x53 Hex head

Timber support
50mm nominal,
thickness

0.75mm Metal
support thickness

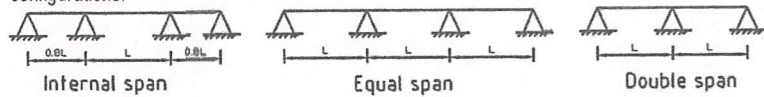
METROLL TRIMCLAD ROOF CLADDING - SERVICEABILITY LIMIT STATE DESIGN PRESSURES (kPa)									
Thickness BMT (mm)	Cyclone Washers Fitted	Span Type	Maximum Design Pressure (kPa) For Span L (mm)						
			450	600	900	1200	1500	1800	2100
0.42	No	Internal	5.08	3.88	2.64	2.03	<i>1.50</i>	<i>1.14</i>	<i>0.89</i>
		Equal	4.63	3.51	2.41	1.85	<i>1.32</i>	<i>1.01</i>	<i>0.81</i>
		Double	3.70	2.85	1.95	1.48	<i>1.05</i>	<i>0.81</i>	<i>0.65</i>
	Yes	Internal	-	5.46	4.04	3.32	<i>2.26</i>	<i>1.55</i>	<i>1.04</i>
		Equal	-	4.98	3.68	3.03	<i>1.91</i>	<i>1.31</i>	<i>0.95</i>
		Double	-	3.99	3.04	2.42	<i>1.53</i>	<i>1.05</i>	<i>0.76</i>
0.48	No	Internal	7.80	6.01	4.22	3.32	2.33	1.87	1.20
		Equal	7.11	5.48	3.85	3.03	2.00	1.44	1.09
		Double	5.89	4.50	3.15	2.42	1.80	1.15	0.87
	Yes	Internal	-	-	6.11	4.82	3.20	2.12	1.35
		Equal	-	-	5.57	4.39	2.68	1.77	1.23
		Double	-	-	4.46	3.51	2.14	1.41	0.98

METROLL TRIMCLAD ROOF CLADDING - ULTIMATE LIMIT STATE DESIGN PRESSURES (kPa)									
Thickness BMT (mm)	Cyclone Washers Fitted	Span Type	Maximum Design Pressure (kPa) For Span L (mm)						
			450	600	900	1200	1500	1800	2100
0.42	No	Internal	7.68	5.49	3.29	2.19	<i>1.75</i>	<i>1.46</i>	<i>1.25</i>
		Equal	7.00	4.75	2.83	2.00	<i>1.59</i>	<i>1.33</i>	<i>1.14</i>
		Double	5.60	3.80	2.27	1.60	<i>1.28</i>	<i>1.06</i>	<i>0.91</i>
	Yes	Internal	-	9.87	6.52	4.84	<i>3.63</i>	<i>2.82</i>	<i>2.25</i>
		Equal	-	9.00	5.92	4.41	<i>3.21</i>	<i>2.50</i>	<i>2.05</i>
		Double	-	7.20	4.74	3.53	<i>2.57</i>	<i>2.00</i>	<i>1.64</i>
0.48	No	Internal	9.87	7.31	4.74	3.46	2.71	2.22	1.86
		Equal	9.00	6.57	4.26	3.15	2.45	2.01	1.70
		Double	7.20	5.26	3.41	2.52	1.98	1.61	1.36
	Yes	Internal	-	-	9.18	6.58	4.76	3.54	2.68
		Equal	-	-	8.35	6.00	4.15	3.10	2.44
		Double	-	-	6.68	4.80	3.33	2.48	1.95

METROLL TRIMCLAD ROOF CLADDING - ULTIMATE LIMIT STATE DESIGN PRESSURES (kPa)									
Thickness BMT (mm)	Cyclone Washers Fitted	Span Type	Maximum Design Pressure (kPa) For Span L (mm)						
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		Double	5.60	3.80	2.27	1.60	<i>1.28</i>	<i>1.06</i>	<i>0.91</i>
	Yes	Internal	-	8.90	5.93	4.45	<i>3.56</i>	<i>2.82</i>	<i>2.25</i>
		Equal	-	8.11	5.41	4.05	<i>3.21</i>	<i>2.50</i>	<i>2.05</i>
		Double	-	7.14	4.74	3.53	<i>2.57</i>	<i>2.00</i>	<i>1.64</i>
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		Double	7.20	5.26	3.41	2.52	1.98	1.61	1.36
	Yes	Internal	-	-	5.93	4.45	3.56	2.97	2.54
		Equal	-	-	5.41	4.05	3.25	2.70	2.32
		Double	-	-	4.76	3.57	2.86	2.38	1.95

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****Design Engineers Certification**
LCJ Engineers Pty. Ltd.
Name: Daniel Johnstone
Rego Number: RPEQ 5892 / NT 58497ES
Date: 12/2/14
Signature:

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Accepted for Inclusion

DTCM ref: *m/193/2* Sheet 2 of 2

Chairman's Signature:

Chairman's Name:

STEVEN J. THURICH

Date of Approval: *13-3-14*

Expiry Date: *13-3-19*

**registered as a structural engineer in Australia

**registered as a structural engineer in Northern Territory