

# METROLL CYCLONIC DESIGN FOR ROOFING & WALLING

CORODEK®, TRIMCLAD® & METROSPAN® PROFILES



A Met-TECH™ GUIDE

JANUARY 2019



**Metroll®**

BETTER SERVICE • BETTER BUILDING SOLUTIONS

# CYCLONIC DESIGN FOR ROOFING & WALLING

The Metroll Cyclonic Design Manual for roofing and walling provides all relevant information for builders, contractors and specifiers who wish to specify or use Metroll roofing or walling products in cyclonic areas.

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## What is Met-TECH™ ?

Met-TECH™ is Metroll's Technical Resource Centre. It is the one stop shop for all of Metroll's product and technical information. Perfect for builders, contractors and specifiers to source all the information they may require. You can find other Met-TECH items on our website

[www.metroll.com.au/resources](http://www.metroll.com.au/resources)

## MATERIALS

Metroll roofing and wall cladding products are manufactured from high tensile G550 or G300 zinc-aluminium coated or colour coated steel conforming to AS 1397. Metroll offers a wide range of colours and finishes including galvanised, the full range of COLORBOND® and ZINCALUME® steel products.

## PRODUCTS & PROFILES

The following products are covered in this manual:

**Metroll CORODEK®**

**Metroll TRIMCLAD®**

**Metroll METROSPAN®**

These products are suitable for use in residential, commercial and industrial applications.

## CYCLONIC TESTING

The Building Code of Australia requires all roof cladding used in cyclonic areas to withstand a Low High Low (LHL) cyclonic testing regime.

Metroll has undergone extensive testing to confirm it meets or exceeds all relevant requirements of the BCA and associated Australian Standards. Metroll's products were tested at the Cyclone Testing Station - James Cook University, Townsville.

The wind pressures and capacities stated in this manual are based on the testing completed and comply with AS4040.3. Simplified design tables provided comply with AS4055. Ultimate limit state capacity tables comply with AS1170.2.

## NORTHERN TERRITORY - Deemed to Comply

The data tables in this brochure may be used for designers, builders and contractors operating in the Northern Territory. Metroll products have been approved under the deemed to Comply regime. More information can be accessed on the NT BAC website.

## REFERENCED AUSTRALIAN STANDARDS

AS/NZS 1170.1:2011	Structural Design Actions - Permanent, imposed & other actions.
AS/NZS 1170.2:2011	Structural Design Actions - Wind actions.
AS/NZS 1397:2013	Steel Sheet & Strip - Hot dipped zinc-coated or aluminium/zinc coated.
AS/NZS 1562.1:1992	Design & Installation of Sheet Roof & Wall Cladding - Metal
AS/NZS 2179.1:1994	Specification for Rainwater Goods, Accessories & Fasteners - Metal shape or sheet rainwater goods & metal accessories & fasteners.
AS 2180.2:1986	Metal Rainwater Goods Selection & Installation.
AS/NZS 2334:1980	Steel Nails - Metric series.
AS/NZS 2728:2007	Prefinished/prepainted Sheet Metal Products for Interior/Exterior Building Applications - Performance Requirements.
AS 3500.3:2003	Plumbing & Drainage - Stormwater drainage.
AS 3566.1:2002	Self-drilling Screws for the Building & Construction Industries - General requirements and mechanical properties.
AS 4040.1:1992	Methods of Testing Sheet Roof & Wall Cladding - Resistance to concentrated loads.
AS 4040.2:1992	Resistance to Wind Pressures for Non-cyclonic Regions.
AS 4055:2012	Wind Loads for Housing.
HB 39:1997	Installation Code for Metal Roof & Wall Cladding.

# TECHNICAL NOTES TO LIMIT STATE CAPACITY TABLES

## C Class Wind Regions

### DESIGN CRITERIA

The following criteria from AS/NZS 1170 have been used to generate the tables in this brochure:

1. Importance Level 2. Annual probability of exceedance 1:500.
2.  $V_{500} = 66\text{m/s}$ ,  $F_c + 1.05$ ,  $V_R = 69\text{m/s}$ .
3.  $M_s = M_t = M_d = 1.0$ .
4.  $C_{pe} =$  as per AS/NZS 1170.
5. Height multiplier as determined by Structural Engineer.
6. For local pressure factors and building aspect ratios refer to table 5.6 AS 1170.

### LIMITATIONS

- Information provided is for roof application only.
- Values in shaded cells denotes spans that exceed foot traffic limitations.
- Internal spans should have both end spans 20% shorter than tabulated values.
- The maximum permissible free edge overhang is 150mm from the screw line.
- The maximum permissible stiffened edge overhang is 300mm from the 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 NT) for the batten product is used in conjunction with these tables.

### FOOT TRAFFIC

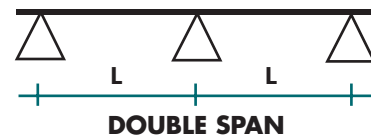
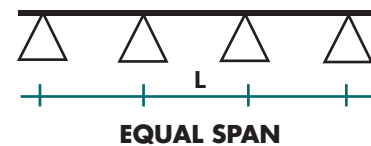
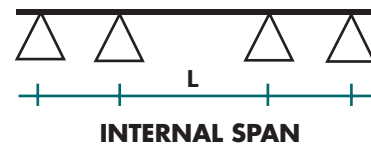
Recommended maximum spans for foot traffic on roofs are:

	<b>0.42 BMT</b>	<b>0.48 BMT</b>	<b>0.60 BMT</b>
Corodek®	900mm	1300mm	1600mm
Trimclad®	1350mm	1850mm	-
Metrospan®	1800mm	2250mm	-

### NOTES TO TABLES

These tables have been prepared by LCJ Engineers Pty Ltd. Information us based on Low High Low testing completed by the Cyclone Testing Station - School of Engineering, James Cook University.

1. The table values are only valid for use when the supporting steel members are high enough tensile strength, G450 with a thickness greater than 0.75mm or F17 Hardwood.
2. Roof sheeting shall be crest fixed to supports with Class 4 self drilling screws (refer fixing table), in accordance with manufacturers recommendations. Length to suit insulation, sarking and 30mm embedment into timber.
3. Description of span types in the tables refer to the support configurations below:



# CORODEK® CYCLONIC LIMIT STATE CAPACITY TABLE

## ULTIMATE LIMIT STATE DESIGN PRESSURE (kPa)

Table and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

Support Structure	BMT mm	Cyclone Washers Fitted?	Span Type	MAX. DESIGN PRESSURE (kPa) FOR SPAN (mm)						
				450	600	750	900	1200	1500	1800
Metal 1.0mm, 1.5mm or Timber F17 Hardwood	0.42	No	Internal	8.21	5.98	4.64	3.75	2.63	2.04	1.65
			Equal	7.48	5.29	4.07	3.31	2.40	1.85	1.50
			Double	5.98	4.23	3.26	2.65	1.92	1.48	1.20
		Yes	Internal	-	9.81	7.96	6.72	5.18	3.62	2.59
			Equal	-	8.94	7.25	6.13	4.72	3.21	2.36
			Double	-	7.15	5.85	1.95	3.78	2.57	1.89
	0.48	No	Internal	10.06	7.79	6.43	5.52	4.39	3.47	2.85
			Equal	9.17	7.10	5.86	5.03	4.00	3.15	2.60
			Double	7.34	5.86	4.86	4.15	3.20	2.52	2.08
		Yes	Internal	-	-	10.22	8.36	6.03	4.49	3.46
			Equal	-	-	9.32	7.57	5.50	4.04	3.15
			Double	-	-	7.46	6.06	4.40	3.22	2.52
	0.60	No	Internal	9.87	7.50	6.08	5.13	3.95	3.42	3.07
			Equal	9.00	6.84	5.54	4.68	3.60	3.12	2.80
			Double	7.20	5.54	4.50	3.79	2.88	2.53	2.24
		Yes	Internal	-	-	10.05	8.51	6.58	4.87	3.73
			Equal	-	-	9.16	7.75	6.00	4.37	3.40
			Double	-	-	7.33	6.24	4.80	3.49	2.72
Metal 0.75mm	0.42	No	Internal	8.21	5.98	4.64	3.75	2.63	2.04	1.65
			Equal	7.48	5.29	4.07	3.31	2.40	1.85	1.50
			Double	5.98	4.23	3.26	2.65	1.92	1.48	1.20
		Yes	Internal	-	9.81	7.96	6.72	5.18	3.62	2.59
			Equal	-	8.94	7.25	6.13	4.72	3.21	2.36
			Double	-	7.15	5.85	4.95	3.78	2.57	1.89
	0.48	No	Internal	10.06	7.79	6.43	5.52	4.39	3.47	2.85
			Equal	9.17	7.10	5.86	5.03	4.00	3.15	2.60
			Double	7.34	5.86	4.86	4.15	3.20	2.52	2.08
		Yes	Internal	-	-	8.90	7.42	5.56	4.45	3.46
			Equal	-	-	8.11	6.76	5.07	4.03	3.15
			Double	-	-	7.14	5.95	4.40	3.22	2.52
	0.60	No	Internal	9.87	7.50	6.08	5.13	3.95	3.42	3.07
			Equal	9.00	6.84	5.54	4.68	3.60	3.12	2.80
			Double	7.20	5.54	4.50	3.79	2.88	2.53	2.24
		Yes	Internal	-	-	8.90	7.42	5.56	4.45	3.71
			Equal	-	-	8.11	6.76	5.07	4.06	3.38
			Double	-	-	7.14	5.95	4.46	3.49	2.72

Shaded value denotes spans outside of recommended foot traffic

# TRIMCLAD® CYCLONIC LIMIT STATE CAPACITY TABLE

## ULTIMATE LIMIT STATE DESIGN PRESSURE (kPa)

Table and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

Support Structure	BMT mm	Cyclone Washers Fitted?	Span Type	MAX. DESIGN PRESSURE (kPa) FOR SPAN (mm)						
				450	600	900	1200	1500	1800	2100
Metal 1.5mm or Timber F17 Hardwood	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
Metal 1.0mm	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
Metal 0.75mm	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	-	8.90	5.93	4.45	3.63	2.82	2.25
			Equal	-	8.11	5.41	4.06	3.21	2.50	2.05
			Double	-	7.14	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	-	-	5.93	4.45	3.56	2.97	2.54
			Equal	-	-	5.51	4.06	3.25	2.70	2.32
			Double	-	-	4.76	3.57	2.86	2.38	1.95

Shaded value denotes spans outside of recommended foot traffic

# METROSPAN® CYCLONIC LIMIT STATE CAPACITY TABLE

## ULTIMATE LIMIT STATE DESIGN PRESSURE (kPa)

Table and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

Support Structure	BMT mm	Cyclone Washers Fitted?	Span Type	MAX. DESIGN PRESSURE (kPa) FOR SPAN (mm)						
				450	600	750	900	1200	1500	1800
Metal 1.5mm or Timber F17 Hardwood	0.42	No	Internal	7.68	6.06	5.08	4.43	3.62	2.53	1.81
			Equal	7.00	5.52	4.63	4.04	3.30	2.24	1.65
			Double	5.59	4.62	3.91	3.38	2.64	1.80	1.32
		Yes	Internal	-	-	9.87	7.92	5.49	4.21	3.37
			Equal	-	-	9.00	7.13	5.00	3.81	3.07
			Double	-	-	7.20	5.70	4.00	3.05	2.46
	0.48	No	Internal	9.87	7.45	5.99	5.02	3.81	3.00	2.47
			Equal	9.00	6.79	5.46	4.58	3.47	2.74	2.25
			Double	7.20	5.46	4.40	3.68	2.78	2.18	1.80
		Yes	Internal	-	-	-	10.22	7.10	5.31	4.11
			Equal	-	-	-	9.32	6.48	4.77	3.75
			Double	-	-	-	7.46	5.18	3.82	3.00
Metal 1.0mm	0.42	No	Internal	7.68	6.06	5.08	4.43	3.62	2.53	1.81
			Equal	7.00	5.52	4.63	4.04	3.30	2.24	1.65
			Double	5.59	4.62	3.91	3.38	2.64	1.80	1.32
		Yes	Internal	-	-	9.87	7.92	5.49	4.21	3.37
			Equal	-	-	9.00	7.13	5.00	3.81	3.07
			Double	-	-	7.20	5.70	4.00	3.05	2.46
	0.48	No	Internal	9.87	7.45	5.99	5.99	3.81	3.00	2.47
			Equal	9.00	6.79	5.46	5.46	3.47	2.74	2.25
			Double	7.20	5.46	4.40	4.40	2.78	2.18	1.80
		Yes	Internal	-	-	-	-	6.70	5.31	4.11
			Equal	-	-	-	-	6.10	4.77	3.75
			Double	-	-	-	-	5.18	3.82	3.00
Metal 0.75mm	0.42	No	Internal	7.68	6.06	5.08	4.43	3.62	2.53	1.81
			Equal	7.00	5.52	4.63	4.04	3.30	2.24	1.65
			Double	5.59	4.62	3.91	3.38	2.64	1.80	1.32
		Yes	Internal	-	-	7.75	6.46	4.84	3.88	3.23
			Equal	-	-	7.06	5.89	4.42	3.53	2.94
			Double	-	-	6.22	5.18	3.89	3.05	2.46
	0.48	No	Internal	9.87	7.45	5.99	5.02	3.81	3.00	2.47
			Equal	9.00	6.79	5.46	4.58	3.47	2.74	2.25
			Double	7.20	5.46	4.40	3.68	2.78	2.18	1.80
		Yes	Internal	-	-	-	6.46	4.84	3.88	3.23
			Equal	-	-	-	5.89	4.42	3.53	2.94
			Double	-	-	-	5.18	3.89	3.11	2.59

# SERVICEABILITY LIMIT STATE DESIGN PRESSURE (kPa) TABLES

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

CORODEK®	BMT mm	Cyclone Washers Fitted?	Span Type	MAX. DESIGN PRESSURE (kPa) FOR SPAN (mm)						
				450	600	750	900	1200	1500	1800
				0.42	No	Internal	6.65	4.87	3.80	3.09
Equal	6.06	4.34	3.37			2.75	2.01	1.20	0.78	
Double	4.85	3.47	2.69			2.20	1.61	0.96	0.62	
Yes	Internal	-	6.40		4.77	3.69	2.34	1.45	0.87	
	Equal	-	5.83		4.16	3.19	2.13	1.25	0.79	
	Double	-	4.67		3.33	2.55	1.70	1.00	0.63	
0.48	No	Internal	8.26	6.11	4.83	3.97	2.90	1.73	0.95	
		Equal	7.53	5.50	4.33	3.57	2.64	1.47	0.87	
		Double	6.02	4.40	3.46	2.86	2.11	1.18	0.70	
	Yes	Internal	-	-	7.73	5.30	3.16	1.83	0.95	
		Equal	-	-	7.05	4.83	2.87	1.54	0.87	
		Double	-	-	5.64	3.86	2.30	1.24	0.70	
0.60	No	Internal	8.64	6.67	5.49	4.70	3.71	2.23	1.24	
		Equal	7.88	6.08	5.00	4.28	3.38	1.90	1.13	
		Double	6.30	5.00	4.13	3.51	2.70	1.52	0.90	
	Yes	Internal	-	-	8.16	6.29	3.95	2.34	1.27	
		Equal	-	-	7.44	5.58	3.60	1.99	1.16	
		Double	-	-	5.95	4.46	2.88	1.59	0.93	

Shaded value denotes spans outside of recommended foot traffic

TRIMCLAD®	BMT mm	Cyclone Washers Fitted?	Span Type	MAX. DESIGN PRESSURE (kPa) FOR SPAN (mm)						
				450	600	900	1200	1500	1800	2100
				0.42	No	Internal	5.08	3.86	2.64	2.03
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	1.55	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	

Shaded value denotes spans outside of recommended foot traffic

METROSPAN®	BMT mm	Cyclone Washers Fitted?	Span Type	MAX. DESIGN PRESSURE (kPa) FOR SPAN (mm)						
				450	600	750	900	1200	1500	1800
				0.42	No	Internal	5.44	4.18	3.42	2.91
Equal	4.96	3.81	3.12			2.66	2.08	1.68	1.42	
Double	3.97	3.12	2.56			2.17	1.66	1.36	1.14	
Yes	Internal	-	-		5.98	4.83	3.39	2.51	1.92	
	Equal	-	-		5.45	4.35	3.09	2.25	1.75	
	Double	-	-		4.36	3.48	2.47	1.80	1.40	
0.48	No	Internal	7.19	5.75	4.88	4.31	3.59	2.52	1.81	
		Equal	6.55	5.24	4.45	3.93	3.27	2.30	1.65	
		Double	5.24	4.45	3.81	3.31	2.62	1.79	1.32	
	Yes	Internal	-	-	-	7.33	5.42	3.57	2.34	
		Equal	-	-	-	6.68	4.94	3.11	2.13	
		Double	-	-	-	5.34	3.95	2.49	1.70	



# FASTENER SELECTION & INFORMATION

Roof sheeting shall be fixed to supports with Class 4 fasteners in accordance with manufacturers recommendations. Length to suit insulation/sarking and 30mm embedment into timber.

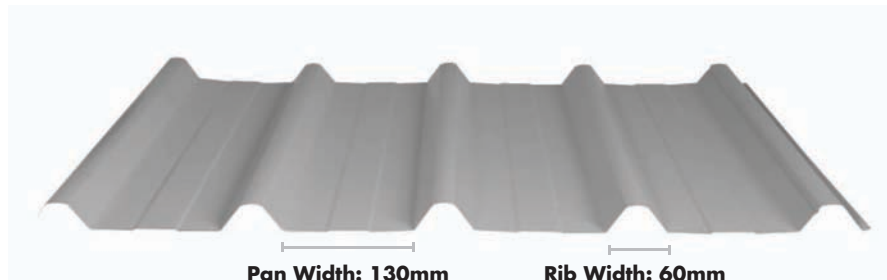
SUPPORTING MEMBER	CORODEK®	TRIMCLAD®	METROSPAN®
Timber F17 Hardwood Supports	14 - 10 x 50mm Type 17	14 - 10 x 65mm Type 17	14 - 10 x 65mm Type 17
Steel Supports 0.75 - 1.0mm BMT	M6 - 11 x 50mm Roof Zips® or equivalent	M6 - 11 x 50mm Roof Zips® or equivalent	M6 - 11 x 50mm Roof Zips® or equivalent
Steel Supports 1.2 - 4.0mm BMT	14 - 10 x 53mm Hex Head	14 - 10 x 53mm Hex Head	14 - 10 x 53mm Hex Head
Side Lap (where required)	8 - 18 x 12mm Screws	8 - 18 x 12mm Screws	8 - 18 x 12mm Screws
Fixing	Crest fix to every second rib	Crest fix to every rib	Crest fix to every second rib
Cyclonic Washer	Rooflok™ or equivalent	Rooflok™ or equivalent	Rooflok™ or equivalent

## CORODEK®



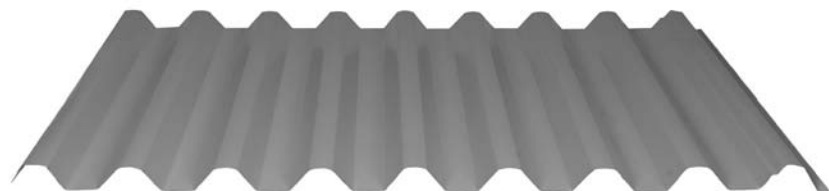
**Cover: 762mm Height: 16mm**

## TRIMCLAD®



**Cover: 762mm Height: 29mm**

## METROSPAN®



**Cover: 700mm Height: 24mm**

# CYCLONIC LIMIT STATE SPAN TABLES - ROOFING

Tables and values must be used in conjunction with the Design Notes.

Fixed to minimum metal 1.0mm steel or Timber F17 Hardwood.

## CORODEK®

BMT mm	Cyclone Washers Fitted?	WIND CATEGORY	C1			C2			C3			C4		
		Pressure kPa	2.16	3.38	4.59	3.21	5.02	6.83	4.73	7.39	10.05	6.39	9.98	13.58
		Span Type	G	RE	RC	G	RE	RC	G	RE	RC	G	RE	RC
0.42	N	End	1070	730	560	760	510	-	540	-	-	-	-	-
		Internal	1420	970	740	1010	690	530	720	-	-	560	-	-
	Y	End	1600	1190	930	1240	850	660	890	610	-	690	-	-
		Internal	1600	1560	1200	1600	1110	860	1170	800	620	910	620	-
0.48	N	End	1600	1090	780	1150	700	500	750	-	-	540	-	-
		Internal	1600	1530	1090	1600	980	700	1050	640	-	750	-	-
	Y	End	1600	1440	1120	1500	1040	810	1090	760	590	860	600	-
		Internal	1600	1600	1460	1600	1350	1050	1420	990	770	1110	770	600
0.60	Y	End	1600	1060	740	1120	660	-	710	-	-	500	-	-
		Internal	1600	1510	1060	1600	950	660	1020	600	-	710	-	-
	N	End	1600	1540	1170	1600	1080	820	1140	770	580	870	590	-
		Internal	1600	1600	1550	1600	1430	1090	1510	1010	770	1160	770	590

## TRIMCLAD®

BMT mm	Cyclone Washers Fitted?	WIND CATEGORY	C1			C2			C3			C4		
		Pressure kPa	2.16	3.38	4.59	3.21	5.02	6.83	4.73	7.39	10.05	6.39	9.98	13.58
		Span Type	G	RE	RC	G	RE	RC	G	RE	RC	G	RE	RC
0.42	N	End	760	640	530	660	-	-	520	-	-	-	-	-
		Internal	1430	970	740	1010	680	520	720	-	-	550	-	-
	Y	End	1400	990	780	1030	730	570	760	540	-	600	-	-
		Internal	1600	1250	990	1300	930	730	970	690	550	770	550	-
0.48	N	End	1140	790	610	830	570	-	600	-	-	-	-	-
		Internal	1490	1030	800	1070	740	570	780	540	-	610	-	-
	Y	End	1600	1190	950	1240	890	710	930	670	530	740	530	-
		Internal	1600	1510	1210	1570	1130	900	1180	850	670	940	680	540

## METROSPAN®

BMT mm	Cyclone Washers Fitted?	WIND CATEGORY	C1			C2			C3			C4		
		Pressure kPa	2.16	3.38	4.59	3.21	5.02	6.83	4.73	7.39	10.05	6.39	9.98	13.58
		Span Type	G	RE	RC	G	RE	RC	G	RE	RC	G	RE	RC
0.42	N	End	1350	910	610	960	530	-	580	-	-	-	-	-
		Internal	1630	1200	890	1260	800	510	860	-	-	570	-	-
	Y	End	1800	1380	1070	1440	1000	780	1050	730	560	820	570	-
		Internal	1800	1790	1400	1800	1300	1010	1360	950	740	1070	740	570
0.48	N	End	1520	970	710	1020	650	-	690	-	-	510	-	-
		Internal	1800	1330	980	1400	890	650	950	600	-	700	-	-
	Y	End	1800	1650	1300	1710	1220	960	1270	910	720	1010	720	570
		Internal	1800	1800	1660	1800	1550	1230	1620	1150	910	1290	920	720

G = General Areas, RE = Within 1200mm of Roof Edges, RC = At corners within 1200mm of the Roof Edges

# CYCLONIC LIMIT STATE SPAN TABLES - WALLING

Tables and values must be used in conjunction with the Design Notes.

Fixed to minimum metal 1.0mm steel or Timber F17 Hardwood. Wall cladding may be crest or pan fixed.

## CORODEK®

BMT mm	Cyclone Washers Fitted?	WIND CATEGORY	C1				C2			C3			C4		
		Pressure kPa	1.80	1.80	2.70	2.68	2.68	4.02	3.94	3.94	5.91	5.33	5.33	7.99	
		Span Type	G,SC	G	SC	G,SC	G	SC	G,SC	G	SC	G,SC	G	SC	
0.42	N	End	1260	1260	880	890	890	620	640	640	640	-	-	-	
		Internal	1660	1660	1170	1180	1180	830	850	850	600	650	650	-	
	Y	End	2020	2020	1430	1440	1440	1020	1040	1040	740	810	810	570	
		Internal	2400	2400	1890	1900	1900	1350	1370	1370	970	1060	1060	750	
0.48	N	End	2180	2180	1400	1410	1410	900	920	920	590	660	660	-	
		Internal	2400	2400	1970	1990	1260	1290	1290	1290	820	920	920	580	
	Y	End	2390	2390	1270	1730	1730	1250	1270	1270	910	990	990	710	
		Internal	2400	2400	2240	2260	2260	1620	1650	1650	1180	1290	1290	930	
0.60	Y	End	2210	2210	1380	1390	1390	860	880	880	550	620	620	-	
		Internal	2400	2400	1970	1990	1990	1230	1260	1260	780	890	890	550	
	N	End	2400	2400	1880	1890	1890	1320	1340	1340	940	1030	1030	720	
		Internal	2400	2400	2400	2400	2400	1750	1780	1780	1240	1360	1360	950	

## TRIMCLAD®

BMT mm	Cyclone Washers Fitted?	WIND CATEGORY	C1				C2			C3			C4		
		Pressure kPa	1.80	1.80	2.70	2.68	2.68	4.02	3.94	3.94	5.91	5.33	5.33	7.99	
		Span Type	G,SC	G	SC	G,SC	G	SC	G,SC	G	SC	G,SC	G	SC	
0.42	N	End	800	800	710	710	710	580	590	590	-	-	-	-	
		Internal	1670	1670	1180	1180	1180	830	840	840	590	650	650	-	
	Y	End	1610	1610	1180	1180	1180	860	880	880	640	700	700	510	
		Internal	2020	2020	1490	1490	1490	1100	1110	1110	820	890	890	650	
0.48	N	End	1330	1330	950	960	960	690	700	700	500	540	540	-	
		Internal	1730	1730	1240	1240	1240	890	910	910	650	710	710	500	
	Y	End	1890	1890	1400	1410	1410	1050	1060	1060	790	850	850	630	
		Internal	1800	2400	1790	1800	1800	1330	1350	1350	1000	1080	1080	800	

## METROSPAN®

BMT mm	Cyclone Washers Fitted?	WIND CATEGORY	C1				C2			C3			C4		
		Pressure kPa	1.80	1.80	2.70	2.68	2.68	4.02	3.94	3.94	5.91	5.33	5.33	7.99	
		Span Type	G,SC	G	SC	G,SC	G	SC	G,SC	G	SC	G,SC	G	SC	
0.42	N	End	1520	1520	1130	1140	1140	730	750	750	-	-	-	-	
		Internal	1780	1780	1430	1430	1430	1030	1050	1050	640	740	740	-	
	Y	End	2310	2310	1660	1670	1670	1200	1220	1220	870	950	950	680	
		Internal	2990	2990	2150	2160	2160	1550	1580	1580	1140	1240	1240	890	
0.48	N	End	1820	1820	1210	1220	1220	810	830	830	550	610	610	-	
		Internal	2510	2510	1670	1680	1680	1110	1140	1140	760	840	840	560	
	Y	End	2660	2660	1950	1960	1960	1440	1470	1470	1080	1160	1160	850	
		Internal	3000	3000	2490	2510	2510	1840	1870	1870	1370	1480	1480	1090	

G, SC = Any Position, G = Away from Corners, SC = Within 1200mm of Corners

# RESIDENTIAL ROOFING

## 0.42 BMT CORODEK® CYCLONIC LIMIT STATE SPAN TABLES

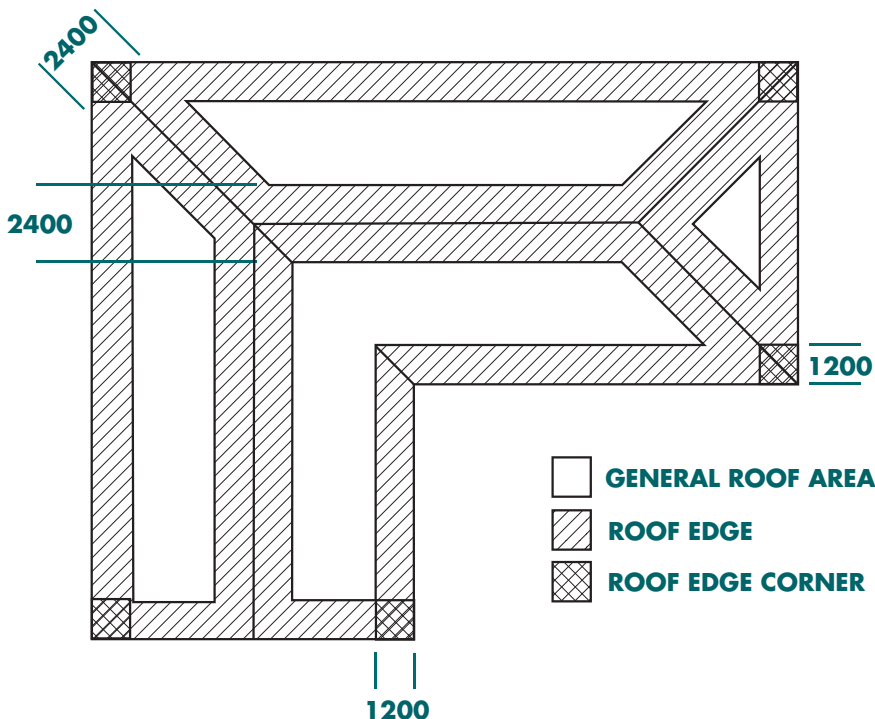
### 40 x 0.75mm Battens CYCLONE WASHERS FITTED

WIND CATEGORY	900mm TRUSS SPACING			1200mm TRUSS SPACING			
	Constant Batten Spacing	Variable Batten Spacing			G	RE	RC
		G	RE	RC			
C1	850	1350	1050	790	1250	800	590
C2	570	1130	720	530	850	540	400
C3	NS	760	490	NS	570	370	NS

### NO CYCLONE WASHERS FITTED

C1	690	1330	890	690	1250	800	590
C2	490	930	630	490	840	540	400
C3	NS	670	450	NS	570	370	NS

NS = Not Suitable, G = General Areas, RE = Roof Edges, RC = Roof Corners



### NOTES

1. This table is for use on residential projects that fall within the requirements of AS4055 or AS1684.
2. This table has been prepared by LCJ Engineers Pty. Ltd. is based on the Low High 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 reports TS716 and TS638 produced by the CTS. Ultimate cyclic wind load tests were NATA accredited tests.
3. The table has been based on an ultimate roof sheeting fixing to batten load of 0.89kN. If the fixing capacity of the roof sheeting to batten is less than this the table may not be valid.
4. Roof sheeting shall be crest fixed to supports with M6 - 11 x 50mm Roof ZIPS self drilling screws. Fixings shall be in accordance with the manufacturer's recommendations and shall be at every second rib.
5. Maximum batten spacings shown above are only applicable to battens spanning three or more equal end spans. Maximum batten spacings nominated for edges must be maintained within 1200mm of edges of all eaves and ridges, maximum batten spacings nominated for corners must be maintained within 1200mm of two adjacent edges (refer to figure for guidance).
6. The spacings in the table are applicable for batten overhangs of up to 300mm. Batten overhangs greater than 250mm will exceed the recommended serviceability limit for roof traffic loads of 1.1 kN.
7. Battens shall be fixed to timber supports with x2 M5.5 x 40 Batten ZIPS. All supports shall have a minimum joint group of JD4 and shall be 30mm wide minimum.
8. This information provided is as far as possible accurate at the date of publication, however, prior to use Metroll Pty. Ltd recommend you obtain qualified expert advice confirming the suitability of product(s) and information obtained herein.

# DESIGN NOTES TO LIMIT STATE CAPACITY TABLES FOR D CLASS WIND REGIONS

## DESIGN CRITERIA

The values in the tables are calculated in accordance with AS4600 Cold-formed Steel Structures and are derived from beam movement and deflection formulas. Spans are designed to limit maximum deflection of span/150 under service load. Design criteria to AS1170.2 as follows:

1. Importance Level 2.
2.  $M_s = 1.0$ ,  $M_t = 1.0$ ,  $C_{dyn} = 1.0$ .
3. Roof height = 5m top 10m, roof height/building length  $\leq 5$
4. Roof slope  $\leq 10^\circ$
5. V strength = 88 m/s
6. V serviceability = 53 m/s
7.  $k_{ce} = k_{ci} = 0.9$
8.  $k_a = 1.0$
9.  $k_p = 1.0$

## NOTES TO TABLES

- The capacities are theoretical values derived from beam movement and deflection formulas.
- Internal = Internal spans with end spans at least 20% shorter.
- Equal = All spans equal, with minimum of 3 spans.
- Crest fixing to be Buildex 15 - 15 Tekes or M6 - 11 Roof Zips with cyclone caps or equivalent.
- Maximum 5 fixings per sheet per steel support.
- Support to be minimum 0.75mm thick G550 steel.

## TERRAIN CATEGORY TO AS1170.2

### CATEGORY 1:

Exposed open terrain with few or no obstructions and water surfaces at serviceability wind speeds.

### CATEGORY 2:

Water surfaces, open terrain, grassland with few; well scattered obstructions having heights generally from 1.5m to 10m.

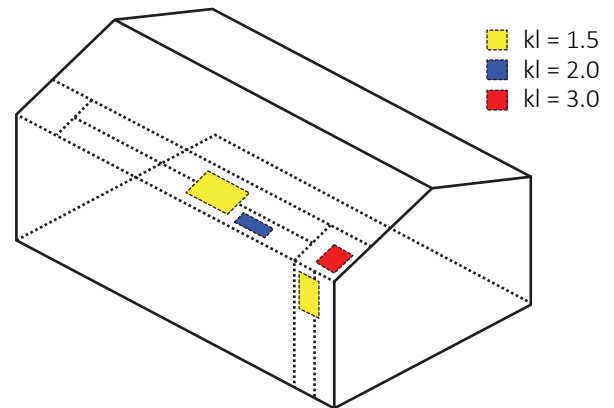
### CATEGORY 3:

Terrain with numerous closely spaced obstructions 3m to 5m high, such as areas of suburban housing.

### CATEGORY 4:

Terrain with numerous large, high (10m to 30m) and closely placed obstructions, such as large city centres and well-developed industrial complexes.

## LOCAL PRESSURE DIAGRAM



# CORODEK® REGION D ROOFING & WALLING SPAN TABLE

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables for D Class Wind Regions.

	Roof Height (m)	Terrain Category	Local Pressure Factor (k)	ROOF PRESSURE (kPa)		Max. Batten Spacing (mm) for Batten Span & Fixing				SPAN				
						x2 No. 14 screws into 1.5 G450 Metal				0.42 BMT		0.48 BMT		
				Service	Strength	450	600	900	1200	Internal	Equal	Internal	Equal	
<b>CORODEK® ROOFING</b>	< = 5	1 & 2	1	1.84	6.04	1200	900	600	450	1150	1050	1200	1150	
			1.5	2.59	7.74	950	700	475	350	1000	950	1050	1000	
			2	3.34	9.44	775	575	375	275	900	850	950	900	
		2.5	3	4.85	12.83	575	425	275	200	750	700	800	800	
			1	1.26	5.12	1425	1075	700	525	1200	1150	1300	1250	
			1.5	1.78	6.56	1125	825	550	400	1100	1000	1150	1100	
		3	2	2.30	8.00	900	675	450	325	950	900	1050	1000	
			3	3.33	10.89	675	500	325	250	850	800	900	850	
			1	1.15	4.28	1725	1275	850	625	1350	1250	1450	1350	
		< = 10	1 & 2	1.5	1.62	5.49	1325	1000	650	500	1200	1100	1250	1200
				2	2.09	6.69	1100	825	550	400	1050	1000	1150	1100
				3	3.03	9.10	800	600	400	300	900	850	1000	950
2.5	1		2.09	6.69	1100	825	550	400	1050	1000	1150	1100		
	1.5		2.95	8.57	850	625	425	300	950	900	1000	950		
	2		3.81	10.45	700	525	350	250	850	800	900	850		
3	3		5.52	14.22	500	375	250	175	700	700	800	750		
	1		1.40	5.98	1225	925	600	450	1150	1050	1200	1150		
	1.5		1.97	7.66	950	700	475	350	1000	950	1050	1000		
3	2		2.54	9.34	775	575	375	275	900	850	955	900		
	3		3.58	12.70	575	425	275	200	750	750	800	800		
	1		1.15	5.30	1375	1025	675	500	1200	1150	1300	1200		
< = 5	1 & 2	1.5	1.62	6.79	1075	800	525	400	1050	1000	1150	1100		
		2	2.09	8.26	875	650	425	325	950	900	1050	950		
		3	3.03	11.26	650	475	325	225	800	750	900	850		
	2.5	1	1.42	5.09	1450	1075	725	525	1250	1150	1300	1250		
		1.5	1.96	6.32	1150	875	575	425	1100	1050	1200	1100		
		2	2.51	7.55	975	725	475	350	1000	950	1050	1000		
	3	1	0.98	4.32	1700	1275	850	625	1350	1250	1450	1350		
		1.5	1.35	5.36	1375	1025	675	500	1200	1150	1300	1200		
		2	1.72	6.40	1150	850	575	425	1100	1050	1150	1000		
	< = 10	1 & 2	1	0.89	3.61	2025	1525	1000	750	1450	1400	1550	1500	
			1.5	1.23	4.48	1650	1225	825	600	1300	1250	1400	1350	
			2	1.57	5.35	1375	1025	675	500	1200	1150	1300	1200	
2.5		1	1.62	5.65	1300	975	650	475	1150	1100	1250	1200		
		1.5	2.24	7.00	1050	775	525	375	1050	1000	1100	1050		
		2	2.85	8.36	875	650	425	325	950	900	1000	950		
3		1	1.08	8.04	1450	1100	725	550	1250	1150	1300	1250		
		1.5	1.49	6.26	1175	875	757	425	1100	1050	1200	1100		
		2	1.90	7.47	975	725	475	350	1000	950	1100	1000		
3		1	0.89	4.47	1650	1225	825	600	1300	1250	1400	1350		
		1.5	1.23	5.55	1325	875	650	475	1150	1100	1250	1200		
		2	1.57	6.62	1100	825	550	400	1050	1000	1150	1100		

# TRIMCLAD® REGION D ROOFING & WALLING SPAN TABLE

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables for D Class Wind Regions.

	Roof Height (m)	Terrain Category	Local Pressure Factor (k)	ROOF PRESSURE (kPa)		Max. Batten Spacing (mm) for Batten Span & Fixing				SPAN					
						x2 No. 14 screws into 1.5 G450 Metal				0.42 BMT		0.48 BMT			
				Service	Strength	450	600	900	1200	Internal	Equal	Internal	Equal		
TRIMCLAD® ROOFING	< = 5	1 & 2	1	1.84	6.04	1200	900	600	450	1100	1050	1200	1150		
			1.5	2.59	7.74	950	700	475	350	1000	950	1050	1000		
			2	3.34	9.44	775	575	375	275	900	850	950	900		
			3	4.85	12.83	575	425	275	525	750	700	800	750		
		2.5	1	1.26	5.12	1425	1075	700	400	1200	1150	1300	1250		
			1.5	1.78	6.56	1125	825	550	325	1100	1000	1150	1100		
			2	2.30	8.00	900	675	450	250	950	900	1050	1000		
			3	3.33	10.89	675	500	325	625	850	800	900	850		
		3	1	1.15	4.28	1725	1275	850	500	1350	1250	1450	1350		
			1.5	1.62	5.49	1325	1000	650	400	1200	1100	1250	1200		
			2	2.09	6.69	1100	825	550	300	1050	1000	1150	1100		
			3	3.03	9.10	800	600	400	400	900	850	1000	900		
TRIMCLAD® ROOFING	< = 10	1 & 2	1	2.09	6.69	1100	825	500	300	1050	1000	1150	1100		
			1.5	2.95	8.57	850	625	425	250	950	900	1000	950		
			2	3.81	10.45	700	525	350	175	850	800	900	850		
			3	5.52	14.22	500	375	250	450	700	700	750	750		
		2.5	1	1.40	5.98	1225	925	600	350	1150	1050	1200	1150		
			1.5	1.97	7.66	950	700	475	275	1000	950	1050	1000		
			2	2.54	9.34	775	575	375	275	900	850	950	900		
			3	3.68	12.70	575	425	275	200	750	750	800	800		
		3	1	1.15	5.30	1375	1025	675	500	1200	1150	1300	1200		
			1.5	1.62	6.79	1075	800	525	400	1050	1000	1150	1050		
			2	2.09	8.26	875	650	425	325	950	900	1000	950		
			3	3.03	11.26	650	475	325	225	800	750	650	850		
TRIMCLAD® WALLING	< = 5	1 & 2	1	1.42	5.09	1450	1075	725	525	1250	1150	1300	1250		
			1.5	1.96	6.32	1150	875	575	425	1100	1050	1150	1100		
			2	2.51	7.55	975	725	475	350	1000	950	1050	1000		
		2.5	1	0.98	4.32	1700	1275	850	625	1350	1250	1450	1350		
			1.5	1.35	5.36	1375	1025	675	500	1200	1150	1300	1200		
			2	1.72	6.40	1150	850	575	425	1100	1050	1150	1100		
		3	1	0.89	3.61	2025	1525	1000	750	1450	1400	1550	1500		
			1.5	1.23	4.48	1650	1225	825	600	1300	1250	1400	1350		
			2	1.57	5.35	1375	1025	675	500	1200	1150	1300	1200		
		TRIMCLAD® WALLING	< = 10	1 & 2	1	1.62	5.65	1300	975	650	475	1150	1100	1250	1200
					1.5	2.24	7.00	1050	775	525	375	1050	1000	1100	1050
					2	2.85	8.36	875	650	425	325	950	900	1000	950
2.5	1			1.08	8.04	1450	1100	725	550	1250	1150	1300	1250		
	1.5			1.49	6.26	1175	875	575	425	1100	1050	1200	1100		
	2			1.90	7.47	975	725	475	350	1000	950	1100	1000		
3	1			0.89	4.47	1650	1225	825	600	1300	1250	1400	1350		
	1.5			1.23	5.55	1325	975	650	475	1150	1100	1250	1200		
	2			1.57	6.62	1100	825	550	400	1050	1000	1150	1100		

# METROSPAN® REGION D ROOFING & WALLING SPAN TABLE

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables for D Class Wind Regions.

	Roof Height (m)	Terrain Category	Local Pressure Factor (k)	ROOF PRESSURE (kPa)		Max. Batten Spacing (mm) for Batten Span & Fixing				SPAN			
						x2 No. 14 screws into 1.5 G450 Metal				0.42 BMT		0.48 BMT	
				Service	Strength	450	600	900	1200	Internal	Equal	Internal	Equal
<b>METROSPAN® ROOFING</b>	< = 5	1 & 2	1	1.84	6.04	1200	900	600	450	1550	1450	1650	1550
			1.5	2.59	7.74	950	700	475	350	1350	1300	1450	1400
			2	3.34	9.44	775	575	375	275	1250	1150	1300	1250
		2.5	3	4.85	12.83	575	425	275	200	1050	1000	1150	1050
			1	1.26	5.12	1425	1075	700	525	1700	1600	1800	1700
			1.5	1.78	6.56	1125	825	550	400	1500	1400	1600	1500
		2	2	2.30	8.00	900	675	450	325	1350	1250	1450	1350
			3	3.33	10.89	675	500	325	250	1150	1100	1200	1150
			3	1	1.15	4.28	1725	1275	850	625	1850	1750	1950
		1.5		1.62	5.49	1325	1000	650	500	1600	1550	1750	1650
		2		2.09	6.69	1100	825	550	400	1450	1400	1550	1500
		3		3.03	9.10	800	600	400	300	1250	1200	1350	1250
< = 10	1 & 2	1	2.09	6.69	1100	825	550	400	1450	1400	1550	1500	
		1.5	2.95	8.57	850	625	425	300	1300	1250	1400	1300	
		2	3.81	10.45	700	525	350	250	1150	1100	1250	1200	
		3	5.52	14.22	500	375	250	175	1000	950	1050	1000	
	2.5	1	1.40	5.98	1225	925	600	450	1550	1450	1650	1600	
		1.5	1.97	7.66	950	700	475	350	1350	1300	1450	1400	
		2	2.54	9.34	775	575	375	275	1250	1150	1300	1250	
		3	3.68	12.70	575	425	275	200	1050	1000	1150	1050	
	3	1	1.15	5.30	1375	1025	675	500	1650	1550	1750	1650	
		1.5	1.62	6.79	1075	800	525	400	1450	1400	1550	1500	
		2	2.09	8.26	875	650	425	325	1300	1250	1400	1350	
		3	3.03	11.26	650	475	325	225	1100	1050	1200	1150	
< = 5	1 & 2	1	1.42	5.09	1450	1075	725	525	1700	1600	1800	1700	
		1.5	1.96	6.32	1150	875	575	425	1500	1450	1600	1550	
		2	2.51	7.55	975	725	475	350	1400	1300	1500	1400	
	2.5	1	0.98	4.32	1700	1275	850	625	1850	1750	1950	1850	
		1.5	1.35	5.36	1375	1025	675	500	1650	1550	1750	1650	
		2	1.72	6.40	1150	850	575	425	1500	1400	1600	1500	
	3	1	0.89	3.61	2025	1525	1000	750	2000	1900	2150	2050	
		1.5	1.23	4.48	1650	1225	825	600	1800	1700	1900	1800	
		2	1.57	5.35	1375	1025	675	500	1650	1550	1750	1650	
	< = 10	1 & 2	1	1.62	5.65	1300	975	650	475	1600	1500	1700	1600
			1.5	2.24	7.00	1050	775	525	375	1450	1350	1550	1450
			2	2.85	8.36	875	650	425	325	1300	1250	1400	1350
2.5		1	1.08	8.04	1450	1100	725	550	1700	1600	1800	1700	
		1.5	1.49	6.26	1175	875	575	425	1500	1450	1600	1550	
		2	1.90	7.47	975	725	475	350	1400	1300	1500	1400	
3		1	0.89	4.47	1650	1225	825	600	1800	1700	1950	1850	
		1.5	1.23	5.55	1325	975	650	475	1600	1550	1750	1650	
		2	1.57	6.62	1100	825	550	400	1450	1400	1600	1500	



# INSTALLATION & GENERAL INFORMATION

## LENGTH

Metroll supplies roof and wall sheeting cut to order as required; depending on load limit regulations set by local transport authorities. Lengths for manufacture need to be site measurements and not taken off plans. Sheet length is obtained by measuring the distance from the ridges to the external edges or fascia and adding a minimum of 50mm for overhang into the gutter. Length tolerance for Corodek®, Trimclad® and Metrospan® is  $\pm 0 -15$ mm. To prevent damage when lifting long lengths, ensure sheets are lifted with the use of multiple lift point spreader bars.

## CUTTING

Cut sheets with a method and in a location so that damage is avoided to sheets and other building products. Material should be cut on the ground and not above other materials. Remove all swarf and debris from the work and installation area. Sheets may be cut using a power saw with a steel cutting blade, a power nibbler or with tin snips. Avoid using abrasive discs as these can cause edge and coating damage. Cut COLORBOND® sheets face down to reduce the likelihood of swarf embedding into the surface.

## CARE, HANDLING & STORAGE

Care should be taken at all times when handling sheets to preserve the quality of the finish. Keep packs dry, stored clear of the ground and protected from rain and moisture. Any sheets which become wet should be separated, wiped and placed in the open air to dry.

## WALKING ON ROOF SHEETING

When walking on roof sheeting always wear flat rubber soled shoes and only walk over areas where purlins or batten supports are installed.

## CLEAN UP

Prior to departing the work site remove all foreign debris, screws, rivets and especially any swarf created by drilling or cutting from the roof surface and/or inside gutters. Failure to do so may result in premature corrosion.

## HARSH ENVIRONMENTS

Contact your local Metroll branch if you intend to use Corodek®, Trimclad® or Metrospan® within 1 km of industrial, chemical, marine or corrosive environments.

## CORROSION PROTECTION & MATERIAL COMPATIBILITY

Some building materials and environmental conditions can be detrimental to coated steel products irrespective of the product thickness. These include contact with or exposure to run off from:

- Industrial, agricultural, marine or other aggressive atmospheric conditions.
- Incompatible materials such as lead or copper.
- Building materials subject to cycles of excessive moisture content such as non-seasoned timber.
- Materials which have been treated with preservatives such as CCa or tanalith treated sections.

The best way to minimise corrosion is to keep incompatible materials apart. Never use lead flashings with ZINCALUME®, COLORBOND® or galvanised steels. Drainage from copper roofs onto ZINCALUME®, COLORBOND® or galvanised steels must be avoided.

## AVAILABILITY & DELIVERY

Contact your local Metroll branch for lead times, colours and availability.

Ensuring suitable arrangements are made to assist the unloading of Metroll trucks will help supply material in good order. When lifting long lengths by crane please ensure the load is evenly spread. Where a crane cannot be made available it is the customers responsibility to provide sufficient labour to assist the driver in unloading.

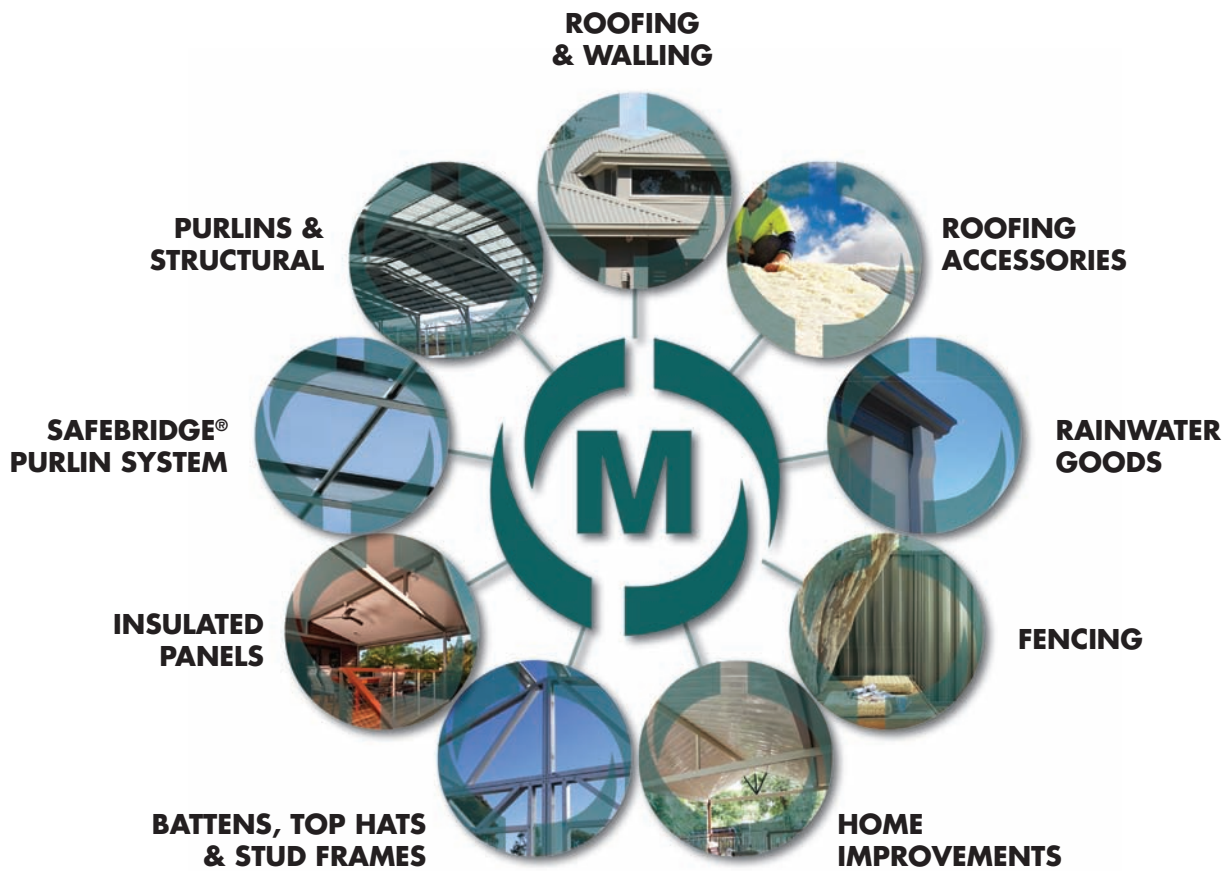
## MAINTENANCE & CLEANING

Basic maintenance of steel cladding by regular washing with water is recommended. Applications where cladding is naturally washed by rainwater do not usually require this maintenance, e.g. roofing. Areas that are not naturally washed by rainfall, such as eaves, wall cladding and the underside of gutters, will benefit from regular washing. These areas and any others that are not regularly exposed to rainfall should be hosed down every six months. In coastal areas where marine salt is prevalent or areas where high levels of industrial fall-out occur, washing should be carried out more frequently.

If required wash the surface with a mild solution of pure soap or mild nonabrasive kitchen detergent in warm water. Apply with a sponge, soft cloth or soft bristle nylon brush. Rinse thoroughly with clean water.

Never use abrasive or solvent based cleaners (turpentine, petrol, kerosene, paint thinner) on COLORBOND® and ZINCALUME® steels.

# Can we assist with any additional Steel Building Products?



<b>QLD</b>		<b>NSW</b>		<b>VIC</b>		<b>TAS</b>	
Cairns	07 4054 0888	Lismore	02 6622 6677	Preston	03 9480 3744	Launceston	03 6335 8555
Townsville	07 4779 8266	Tamworth	02 6765 4799	Laverton	03 8369 8300	<b>NT</b>	
Mackay	07 4968 1255	Newcastle	02 4954 5799	Geelong	03 5248 2006	Darwin	08 8935 9555
Rockhampton	07 4920 0900	Sydney	1300 766 346	Ballarat	03 5335 6416	<b>WA</b>	
Bundaberg	07 4155 5999	Dubbo	02 6883 4800	Pakenham	03 8710 9300	Perth	08 9365 5444
Toowoomba	07 4634 6144	Wagga Wagga	02 5924 4500	<b>SA</b>		Bunbury	08 9796 9796
Sunshine Coast	07 5493 7872	<b>ACT</b>		Adelaide	08 8282 3300	Albany	08 9841 6966
Brisbane	07 3375 0100	Canberra	02 6298 2777				

## 26 Metroll Branches Nationwide

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