

# CORODEK®

POPULAR CORRUGATED ROOFING & WALLING



A Met-TECH™ GUIDE

MAY 2023



**Metroll®**

BETTER SERVICE • BETTER BUILDING SOLUTIONS



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

Corodek® is high tensile steel, corrugated roofing and wall sheeting manufactured from 0.42mm and 0.48mm BMT COLORBOND®, ZINCALUME® and galvanised steels. Corodek® is a multi-purpose roofing and cladding product that is a popular choice for domestic applications.

## FEATURES & BENEFITS

- Traditional, popular profile
- Custom lengths
- Long lengths
- Wide range of colours
- Multi-purpose

### CORODEK® - ROOFING

BMT mm	Steel Base MPa	Mass CB* kg/m <sup>2</sup>	Mass Zinc kg/m <sup>2</sup>	Min. Pitch°
0.42	G550	4.30	4.23	5 (1 in 12)
0.48	G550	4.88	4.81	5 (1 in 12)

### CORODEK® - WALLING

0.42	G550	4.30	4.23
0.48	G550	4.88	4.81

CB = Colorbond®

## FASTENERS

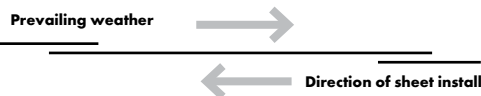
Corodek® may be fastened to timber or steel supports. Corodek® may be fixed with 3 or 5 fasteners per sheet to meet the values shown in this manual. Always face side laps away from the prevailing weather.

## FASTENER LOCATION

### 3 FASTENERS PER SHEET



### 5 FASTENERS PER SHEET



### Timber Supports

**Roofing** M6-11 x 50mm Roof Zips® Hex Head with seal

**Walling** M6-11 x 25mm Roof Zips® Hex Head with seal (Valley Fix)

### Steel Supports 0.48mm to 1.5mm BMT

**Roofing** M6-11 x 50mm Roof Zips® Hex Head with seal

**Walling** M6-11 x 25mm Roof Zips® Hex Head with seal (Valley Fix)

### Steel Supports 1.5mm to 4.5mm BMT

**Roofing** M5.5 x 39mm AutoTek® Hex Head with seal

**Walling** 10-16 x 16mm Hex Head with seal (Valley Fix)

### Side Lap Fasteners (Where required)

10 - 16 x 16 Self-drilling screws, OR

Sealed blind aluminium rivet 3.2mm

## 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)

## SIDE LAPS

It is considered good practice to use fasteners on side laps, although these are generally not necessary when the sheeting is supported as indicated in the maximum span tables or for roof spans under 900mm and wall cladding spans under 1200mm. Side lap fastening should be considered if the weather resistance of the joint is questionable for any reason. It is common industry practice to fasten side laps on curved roofs.

## SPRING CURVING

BMT	CONCAVE ROOFS		CONVEX/ARCHED ROOFS		
	Min. Radius (m)	Support Spacing	Min. Radius (m)	Support Spacing	Max. Radius for Drainage (m)
0.42	12	800	12	800	35
0.48	10	1000	10	1000	35

### RIDGE SPRING CURVING

#### Minimum Spacing of Supports at Ridge (mm)

BMT	PITCH	
	1 in 12 (5°)	1 in 10 (6°)
0.42	1200	-
0.48	1300	1400

#### NOTES

- Sides to be sealed the length of the curvature with appropriate silicone or sealing tape.
- Fasten each sheet on one side of the curve and pull down.
- Fix alternate sheets from the opposite side of the roof
- Slight lip wave or crease marks may appear when subjected to foot traffic. These do not affect strength.
- Roof pitch in the non-curved area must not be less than standard recommendations.
- Rainfall intensity of 400mm/hr to be used for maximum drainage for curved roofs.
- Side laps only require sealing where the roof pitch is lower than the minimum radius of 5 degrees.

## LENGTH

Metroll supplies Corodek® 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.

## TOLERANCES

Consideration should be given to the following manufacturing tolerances:

**Length ± 10mm    Width ± 4mm**

## DRAINAGE & OVERFLOW

### Max Roof Run (m) for Slopes & Rainfall Intensity

Rainfall Intensity mm/hr.	Corodek® Roof Slope		
	5° (1 in 12)	7.5° (1 in 7.5)	10° (1 in 6)
100	47	47	51
150	27	32	35
200	20	24	26
250	16	19	21
300	13	16	17
400	10	12	13

#### NOTES

- Rainwater run-off and drainage capacity may place some limitations on the total length of a sheet run and must be considered during the design and construction phase of a project.
- The total length of roof sheeting; which shall include end laps; expansion joints or steps and draining the roof in one direction; shall be considered as a single roof run.
- Thermal expansion must also be considered.
- Maximum production and transport lengths may limit availability.

## THERMAL EXPANSION

Change in temperature will cause all metals to expand and contract. There is minimal effect with steel roofing and walling, however care must be taken when long sheet runs are used and high temperature variations occur. Metroll recommends the following maximum runs:

**Dark Colours - Up to 17m    Light Colours - Up to 24m**

## CORODEK® FOOT TRAFFIC

BMT (mm)	Internal Span (mm)	End Span (mm)
0.42	1200	900
0.48	1700	1300

#### NOTES

- Foot traffic limits are based on AS/NZS 1170.1 for R2 - Other roofs.
- All traffic must use the designated foot traffic paths and, at all times, follow safe practices.

## CORODEK® OVERHANGS

The overhangs on Corodek® are limited to the values in the following table. Overhangs have a minimum length of 50mm. Stiffened overhangs incorporate an angle or gutter attached to the sheet end.

	BMT (mm)	Plain (mm)	Stiffened (mm)
ROOFING	0.42	200	250
	0.48	250	250
WALLING	0.42	200	300
	0.48	250	350

- Plain overhangs are limited to 20% of the adjacent end span.
- Stiffened overhangs are limited to 33% of the adjacent end span.

# 0.42mm CORODEK® LIMIT STATE CAPACITY TABLES

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

## 0.42mm CORODEK® WITH 3 FASTENERS/SHEET/BATTEN

LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS (mm)	PRESSURE (kPa) FOR SPAN (mm)							
			600	900	1200	1500	1800	2100	2400	2700
SERVICEABILITY	Internal	All	2.11	1.83	1.50	1.25	1.06	0.88	0.71	0.57
	End	All	1.85	1.55	1.25	1.00	0.84	0.65		
STRENGTH	Internal	1.5+	10.50	9.30	7.10	5.25	4.40	3.80	3.22	2.70
		1.2	8.74	5.83	4.37	3.50	2.91	2.50	2.18	1.94
		1.0	8.11	5.41	4.06	3.25	2.70	2.32	2.03	1.80
		0.75	6.87	4.58	3.43	2.75	2.29	1.96	1.72	1.53
		0.55	4.68	3.12	2.34	1.87	1.56	1.34	1.17	1.04
		0.48	4.06	2.70	2.03	1.62	1.35	1.16	1.01	
	End	1.5+	9.45	7.15	5.01	4.12	3.25	3.00	2.30	2.00
		1.2	7.87	5.24	3.93	3.15	2.62	2.25	1.97	1.75
		1.0	7.30	4.87	3.65	2.92	2.43	2.09	1.83	1.62
		0.75	6.18	4.12	3.09	2.47	2.06	1.77	1.54	1.37
		0.55	4.21	2.81	2.11	1.69	1.40	1.20	1.05	0.94
		0.48	3.65	2.43	1.83	1.46	1.22	1.04		

## 0.42mm CORODEK® WITH 5 FASTENERS/SHEET/BATTEN

LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS (mm)	PRESSURE (kPa) FOR SPAN (mm)							
			600	900	1200	1500	1800	2100	2400	2700
SERVICEABILITY	Internal	All	7.00	4.75	3.31	2.20	1.50	1.03	0.81	0.59
	End	All	6.41	4.28	2.61	1.55	0.95	0.63		
STRENGTH	Internal	1.5+	12.00	12.00	11.82	9.96	8.11	6.25	4.40	3.35
		1.2	12.00	10.23	7.68	6.14	5.12	4.39	3.84	3.35
		1.0	12.00	9.50	7.13	5.70	4.75	4.07	3.56	3.17
		0.75	12.00	8.04	6.03	4.82	4.02	3.45	3.02	2.68
		0.55	8.22	5.48	4.11	3.29	2.74	2.35	2.06	1.83
		0.48	7.13	4.75	3.56	2.85	2.38	2.04	1.78	1.58
	End	1.5+	12.00	12.00	9.99	7.83	5.83	4.48	3.60	3.05
		1.2	12.00	9.21	6.91	5.53	4.61	3.95	3.45	3.05
		1.0	12.00	8.55	6.41	5.13	4.28	3.67	3.21	2.85
		0.75	10.86	7.24	5.43	4.34	3.62	3.10	2.71	2.41
		0.55	7.40	4.93	3.70	2.96	2.47	2.11	1.85	1.64
		0.48	6.41	4.28	3.21	2.57	2.14	1.83	1.60	1.43

### DESIGN NOTES

- For timber battens/purlins, use 1.5+ support thickness values.
- Fasteners must penetrate more than 25mm into hardwood or 35mm into softwood.
- Metal supports are produced from hi-tensile steel.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).
- Equal span systems must be designed using end span values.
- Refer to the fastener location guide for correct fastener locations.

# 0.48mm CORODEK® LIMIT STATE CAPACITY TABLES

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

## 0.48mm CORODEK® WITH 3 FASTENERS/SHEET/BATTEN

LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS (mm)	PRESSURE (kPa) FOR SPAN (mm)							
			600	900	1200	1500	1800	2100	2400	2700
SERVICEABILITY	Internal	All	3.05	2.30	1.89	1.59	1.35	1.05	0.82	0.69
	End	All	2.88	1.88	1.43	1.34	1.07	0.85	0.71	
STRENGTH	Internal	1.5+	12.10	10.03	7.80	6.24	4.85	4.15	3.63	3.01
		1.2	8.74	5.83	4.37	3.50	2.91	2.50	2.18	1.94
		1.0	8.11	5.41	4.06	3.25	2.70	2.32	2.03	1.80
		0.75	6.87	4.58	3.43	2.75	2.29	1.96	1.72	1.53
		0.55	4.68	3.12	2.34	1.87	1.56	1.34	1.17	1.04
		0.48	4.06	2.70	2.03	1.62	1.35	1.16	1.01	
	End	1.5+	10.90	8.97	7.02	5.41	4.21	3.52	3.00	2.53
		1.2	7.87	5.24	3.93	3.15	2.62	2.25	1.97	1.75
		1.0	7.30	4.87	3.65	2.92	2.43	2.09	1.83	1.62
		0.75	6.18	4.12	3.09	2.47	2.06	1.77	1.54	1.37
		0.55	4.21	2.81	2.11	1.69	1.40	1.20	1.05	0.94
		0.48	3.65	2.43	1.83	1.46	1.22	1.04		

## 0.48mm CORODEK® WITH 5 FASTENERS/SHEET/BATTEN

LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS (mm)	PRESSURE (kPa) FOR SPAN (mm)							
			600	900	1200	1500	1800	2100	2400	2700
SERVICEABILITY	Internal	All	7.13	4.75	3.56	2.85	1.93	1.47	0.90	0.65
	End	All	6.41	4.28	2.91	1.88	1.29	0.82	0.59	
STRENGTH	Internal	1.5+	12.00	12.00	11.90	10.10	8.35	6.95	5.55	4.15
		1.2	12.00	10.23	7.68	6.14	5.12	4.39	3.84	3.41
		1.0	12.00	9.50	7.13	5.70	4.75	4.07	3.56	3.17
		0.75	12.00	8.04	6.03	4.82	4.02	3.45	3.02	2.68
		0.55	8.22	5.48	4.11	3.29	2.74	2.35	2.06	1.83
		0.48	7.13	4.75	3.56	2.85	2.38	2.04	1.78	1.58
	End	1.5+	10.80	10.80	9.63	8.56	6.65	4.73	3.96	3.83
		1.2	10.80	9.21	6.91	5.53	4.61	3.95	3.45	3.07
		1.0	10.80	8.55	6.41	5.13	4.28	3.67	3.21	2.85
		0.75	10.80	7.24	5.43	4.34	3.62	3.10	2.71	2.41
		0.55	7.40	4.93	3.70	2.96	2.47	2.11	1.85	1.64
		0.48	6.41	4.28	3.21	2.57	2.14	1.83	1.60	1.43

### DESIGN NOTES

- For timber battens/purlins, use 1.5+ support thickness values.
- Fasteners must penetrate more than 25mm into hardwood or 35mm into softwood.
- Metal supports are produced from hi-tensile steel.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).
- Equal span systems must be designed using end span values.
- Refer to the fastener location guide for correct fastener locations.

# 0.42mm CORODEK® SPAN CHART

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

FASTENER FREQUENCY	SPAN TYPE	SUPPORT THICKNESS (mm)	ROOF SPANS (mm) FOR WIND CATEGORY						WALL SPANS (mm) FOR WIND CATEGORY					
			N1	N2	N3	N4	N5	N6	N1	N2	N3	N4	N5	N6
3/SHEET	Internal	1.5+	1200	1200	1200	1050			2700	2700	2150	1500	900	
		1.2	1200	1200	1200	1050			2700	2700	2150	1500	900	
		1.0	1200	1200	1200	1050			2700	2700	2150	1500	900	
		0.75	1200	1200	1200	1000			2700	2700	2000	1350	900	
		0.55	1200	1200	1050	700			2700	2150	1400	900	600	
		0.48	1200	1200	900	600			2600	1850	1200	800	550	
	End	1.5+	900	900	900	800			2200	2200	1700	1200	650	
		1.2	900	900	900	800			2200	2200	1700	1200	650	
		1.0	900	900	900	800			2200	2200	1700	1200	650	
		0.75	900	900	900	800			2200	2200	1600	1050	650	
		0.55	900	900	800	550			2200	1700	1100	700		
		0.48	900	900	700				2050	1450	950	600		
5/SHEET	Internal	1.5+	1200	1200	1200	1200	1200	1200	2700	2700	2350	1950	1650	1400
		1.2	1200	1200	1200	1200	1200	1150	2700	2700	2350	1950	1650	1400
		1.0	1200	1200	1200	1200	1200	1050	2700	2700	2350	1950	1650	1400
		0.75	1200	1200	1200	1200	1200	900	2700	2700	2350	1950	1600	1200
		0.55	1200	1200	1200	1200	850	600	2700	2700	2350	1600	1100	800
		0.48	1200	1200	1200	1050	750	500	2700	2700	2100	1400	950	700
	End	1.5+	900	900	900	900	900	900	2200	2200	1850	1550	1300	1100
		1.2	900	900	900	900	900	900	2200	2200	1850	1550	1300	1100
		1.0	900	900	900	900	900	800	2200	2200	1850	1550	1300	1100
		0.75	900	900	900	900	900	700	2200	2200	1850	1550	1250	950
		0.55	900	900	900	900	650		2200	2200	1850	1250	850	600
		0.48	900	900	900	800	600		2200	2200	1650	1100	750	550

## DESIGN NOTES

- Spans shown reflect the minimum value of the Serviceability, Strength and Foot Traffic tables.
- The Wind Category is based on AS 4055 and results include an allowance for local pressure factors.
- If roof pitch is less than 10 degrees, then increase the Wind Category upwards by 1, e.g. lift N2 to N3, and apply to an area not less than 1.2m from all corners.
- For timber battens/purlins use 1.5+ support thickness values.
- Fasteners must penetrate more than 25mm into hardwood or 35mm into softwood.
- Refer to the fastener location guide for correct fastener locations.
- Metal supports are produced from hi-tensile steel.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).
- Equal span systems must be designed using end span values.

# 0.48mm CORODEK® SPAN CHART

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

FASTENER FREQUENCY	SPAN TYPE	SUPPORT THICKNESS (mm)	ROOF SPANS (mm) FOR WIND CATEGORY						WALL SPANS (mm) FOR WIND CATEGORY					
			N1	N2	N3	N4	N5	N6	N1	N2	N3	N4	N5	N6
3/SHEET	Internal	1.5+	1700	1700	1700	1450	850	550	2700	2700	2350	1900	1300	800
		1.2	1700	1700	1700	1300	850	550	2700	2700	2350	1750	1150	800
		1.0	1700	1700	1700	1200	800	550	2700	2700	2350	1600	1100	800
		0.75	1700	1700	1500	1000	700	500	2700	2700	2000	1350	900	700
		0.55	1700	1600	1050	700			2700	2150	1400	900	600	450
		0.48	1700	1400	900	600			2600	1850	1200	800	550	
	End	1.5+	1300	1300	1300	1050	650		2400	2400	1850	1500	950	600
		1.2	1300	1300	1300	1000	650		2400	2400	1850	1400	900	600
		1.0	1300	1300	1300	950	600		2400	2400	1850	1250	850	600
		0.75	1300	1300	1200	800	550		2400	2400	1600	1050	700	550
		0.55	1300	1250	800	550			2350	1700	1100	700		
		0.48	1300	1100	700				2050	1450	950	600		
5/SHEET	Internal	1.5+	1700	1700	1700	1700	1650	1300	2700	2700	2450	2200	1850	1600
		1.2	1700	1700	1700	1700	1550	1150	2700	2700	2450	2200	1850	1500
		1.0	1700	1700	1700	1700	1450	1050	2700	2700	2450	2200	1850	1400
		0.75	1700	1700	1700	1700	1200	900	2700	2700	2450	2200	1600	1200
		0.55	1700	1700	1700	1200	850	600	2700	2700	2400	1600	1100	800
		0.48	1700	1700	1550	1050	750	500	2700	2700	2100	1400	950	700
	End	1.5+	1300	1300	1300	1300	1300	1000	2250	2250	1950	1750	1450	1250
		1.2	1300	1300	1300	1300	1200	900	2250	2250	1950	1750	1450	1200
		1.0	1300	1300	1300	1300	1150	800	2250	2250	1950	1750	1450	1100
		0.75	1300	1300	1300	1300	950	700	2250	2250	1950	1750	1250	950
		0.55	1300	1300	1300	950	650		2250	2250	1900	1250	850	600
		0.48	1300	1300	1200	800	600		2250	2250	1650	1100	750	550

## DESIGN NOTES

- Spans shown reflect the minimum value of the Serviceability, Strength and Foot Traffic tables.
- The Wind Category is based on AS 4055 and results include an allowance for local pressure factors.
- If roof pitch is less than 10 degrees, then increase the Wind Category upwards by 1, e.g. lift N2 to N3, and apply to an area not less than 1.2m from all corners.
- For timber battens/purlins use 1.5+ support thickness values.
- Fasteners must penetrate more than 25mm into hardwood or 35mm into softwood.
- Refer to the fastener location guide for correct fastener locations.
- Metal supports are produced from hi-tensile steel.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).
- Equal span systems must be designed using end span values.

## WALKING ON CORODEK®

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

## 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.

## 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.

## 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 of the roof or gutters.

### QLD

Cairns	07 4054 0888
Townsville	07 4779 8266
Mackay	07 4968 1255
Rockhampton	07 4920 0900
Bundaberg	07 4155 5999
Toowoomba	07 4634 6144
Sunshine Coast	07 5493 7872
Brisbane	07 3375 0100

### NSW

Lismore	02 6622 6677
Tamworth	02 6765 4799
Newcastle	02 4954 5799
Sydney	1300 766 346
Dubbo	02 6883 4800
Wagga Wagga	02 5924 4500
Canberra	02 6298 2777
Albury	02 6043 6800

## ADVERSE CONDITIONS

Localised environmental conditions can impact the corrosive nature of a site which may impact on material choice. Conditions that may impact on material choice include; direction of prevailing winds, rainfall intensity, duration of exposure, temperature, shelter and areas not washed by rainfall. Contact your local Metroll branch if you intend to use Corodek® within 1 km of industrial, chemical, marine or corrosive environments.

## MATERIAL SPECIFICATION & SCOPE

All roofing and walling should be specified on drawings as Corodek®, manufactured by Metroll and installed in accordance with the manufacturers recommendations. Base sheet steel is G550 with specified finish.

## AVAILABILITY & DELIVERY

Corodek® is available from the national network of Metroll branches. 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.

### VIC

Sunshine	03 9480 3744
Laverton	03 8369 8300
Geelong	03 5248 2006
Ballarat	03 5335 6416
Pakenham	03 8710 9300
<b>TAS</b>	
Hobart	03 6335 8555
Launceston	03 6335 8555

### SA

Adelaide 08 8282 3300

### NT

Darwin 08 8935 9555

### WA

Kalgoorlie 08 9024 1388  
Perth 08 9365 5444  
Bunbury 08 9796 9796  
Albany 08 9841 6966

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