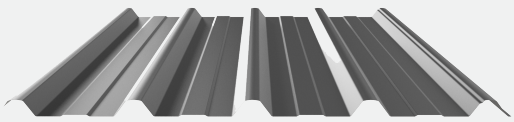
Rev 5 Plus



OVERVIEW

Rev5 Plus is a highly durable roofing and walling profile that is designed to withstand Western Australian weather conditions. It is an ideal choice for commercial and industrial applications.

COVERAGE WIDTH

760mm Nominal

MINIMUM ROOF PITCH

1.5 Degrees

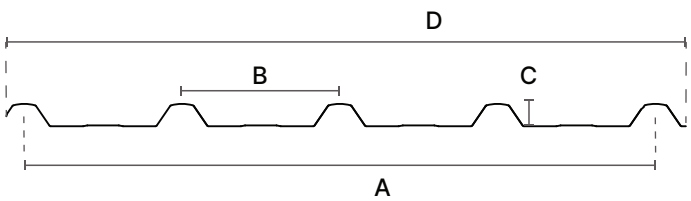
RIB HEIGHT

34.7mm

SPRING CURVING

2500mm Minimum Radius

PROFILE



- A = 760.0mm +/- 2mm
- B = 120.6mm
- C = 34.7mm
- D = 823.8mm

* Visit revbydesign.com.au for CAD & Revit Files

AVAILABILITY

LOCATION

WESTERN AUSTRALIA

MATERIAL & GUAGE

- 0.42 BMT
- 0.48 BMT

- Nexalume™ AZ150
- NEXTEEL NextSTAR™
- NEXTEEL NextSTAR™ Ultra
- NEXTEEL NextSTAR™ Matt

- Zincalume® AM125
- COLORBOND® Steel
- COLORBOND® Steel Ultra
- COLORBOND® Steel Matt

NON-CYCLONIC SPAN TABLE

ROOF SHEETING NON-CYCLONIC SPAN TABLE

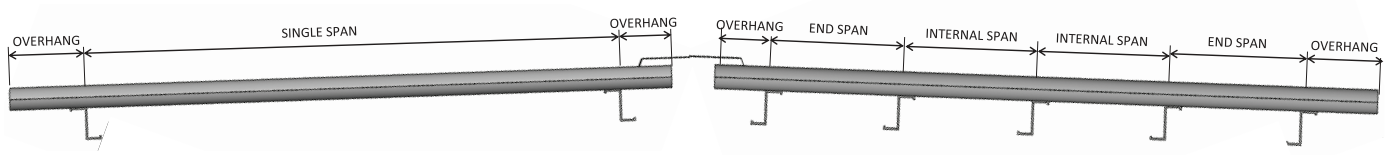
ROOF SPAN	0.42 BMT	0.48 BMT
Single Span	1250	1600
End Span	1750	2250
Internal Span	2350	2950
Unstiffened Overhang	150	180
Stiffened Overhang	300	350

WALL CLADDING NON-CYCLONIC SPAN TABLE

WALL SPAN	0.42 BMT	0.48 BMT
Single Span	1800	2400
End Span	1750	2250
Internal Span	2350	2950
Unsupported Cantileaver	400*	400*

* Rivet required, securing the overlap, 50mm from the end of the sheet

SPAN DEFINTIONS



DESIGN PARAMETERS

Region	A
Terrain Category	2

Height	10 metre
Vz	45 m/sec
q*u	1.215 kPa
qs	0.821 kPa
Cp.e	-0.65
Cp	0.2

Internal Bay	**End Bay**
K_1 = 1.0	K_1 = 2.0
∑C = -0.85v	∑C = -1.50
Pu = 1.03 kPa	Pu = 1.82 kPa
Ps = 0.70 kPa	Ps = 1.23 kPa

NON-CYCLONIC SERVICEABILITY & STRENGTH

NON-CYCLONIC REV 5 PLUS 0.42 BMT

Non-Cyclonic Wind Uplift Resistence - Service and Strength Limit State Design

Single Span			Internal Span			End Span		
Span (mm)	**SERVICEABILITY** (kPa)	**STRENGTH** (kPa)	Span (mm)	**SERVICEABILITY** (kPa)	**STRENGTH** (kPa)	Span (mm)	**SERVICEABILITY** (kPa)	**STRENGTH** (kPa)
900	5.03	9.46	900	2.61	4.39	1200	2.44	3.57
1200	2.78	6.97	1200	1.88	3.57	1500	1.90	3.05
1500	1.76	5.04	1500	1.32	3.05	1800	1.45	2.67
1800	1.21	3.46	1650	1.08	2.84	2100	1.08	2.39

NON-CYCLONIC REV 5 PLUS 0.48 BMT

Non-Cyclonic Wind Uplift Resistence - Service and Strength Limit State Design

Single Span			Internal Span			End Span		
Span (mm)	**SERVICEABILITY** (kPa)	**STRENGTH** (kPa)	Span (mm)	**SERVICEABILITY** (kPa)	**STRENGTH** (kPa)	Span (mm)	**SERVICEABILITY** (kPa)	**STRENGTH** (kPa)
900	5.13	10.20	900	2.70	5.67	1200	2.58	5.36
1200	3.20	8.46	1200	2.19	4.42	1500	2.20	4.44
1500	2.22	6.72	1500	1.88	3.64	1800	1.94	3.81
1800	1.65	4.98	1650	1.74	3.35	2100	1.74	3.34

RAINWATER TABLES

Maximum roof lengths (m) for drainage measured from ridge to gutter, no allowance has been made for penetrations or water diversion.

CROSS SECTIONAL AREA COMPARISON PER PROFILE

EFFECTIVE CROSS-SECTIONAL AREA (m^2 / m)	
Corrugated 16mm	1.249×10^{-3}
True Oak 21mm	2.520×10^{-3}
True Oak 'Super 5'	6.416×10^{-3}
Rev 5	11.85×10^{-3}
Rev 5 Plus	15.29×10^{-3}
RevKlip 700	13.91×10^{-3}
RevSpan 700	4.589×10^{-3}

REV 5 PLUS - RAINFALL CAPACITY

RAINFALL CAPACITY (mm/hr)						
ROOF SLOPE (DEGREES)	150	200	250	300	350	400
1	161	123	100	85	76	61
2	210	160	130	110	99	82
3	250	190	153	129	115	99
5	314	238	192	162	143	125
10	356	280	234	234	185	167

RELATIVE DISCHARGE X 10-6m³ / s / m PER PROFILE

SLOPE (DEGREES)	CORRUGATED 16mm	TRUE OAK 21mm	TRUE OAK 'SUPER 5'	REV 5	REV 5 PLUS	REVKLIP 700	REVSPAN 700
1	103.3	286.1	1227.1	4018.5	5932.9	4974.0	1034.3
2	146.1	404.6	1736.2	5682.9	8390.4	7034.3	1462.8
5	231.0	639.8	2754.2	8985.6	13266.5	11122.3	2312.9
10	326.8	904.8	3882.4	12707.5	18761.6	15729.3	3270.9
15	400.2	1108.1	4752.9	15563.5	22978.2	19264.5	4006.0

RAINWATER INTENSITY PER LOCATION

RAINFALL INTENSITY BY LOCATION (mm / hr)		
	Average recurrance (years)	
Locality	Once in 20	Once in 100
AUSTRALIAN CAPITAL TERRITORY		
Canberra	143	193
NEW SOUTH WALES		
Albury	139	180
Broken Hill	143	219
Newcastle	226	316
Sydney	200	262
NORTHERN TERRITORY		
Alice Springs	166	239
Darwin	233	274
QUEENSLAND		
Brisbane	234	305
Cairns	229	278
Mackay	250	316
Townsville	235	300

RAINFALL INTENSITY BY LOCATION (mm / hr)		
	Average recurrance (years)	
Locality	Once in 20	Once in 100
SOUTH AUSTRALIA		
Adelaide	125	187
Gawler	110	158
Mt Gambier	103	144
Murray Bridge	120	178
Yorketown	155	166
TASMANIA		
Hobart	85	116
Launceston	90	121
VICTORIA		
Ballarat	131	188
Geelong	102	144
Melbourne	132	187
Mildura	142	218

RAINFALL INTENSITY BY LOCATION (mm / hr)		
	Average recurrance (years)	
Locality	Once in 20	Once in 100
WESTERN AUSTRALIA		
Albany	125	178
Broome	232	287
Bunbury	147	199
Geraldton	138	193
Perth	130	172

*Rainwater Intensity Data obtained from the National Construction Code and the Bureau of Meterology.

MASSES

COLORBOND® STEEL AM100

	0.42 BMT	0.48 BMT
kg/lm	3.48	3.94
kg/m²	4.58	5.18

ZINCALUME® AM125

	0.42 BMT	0.48 BMT
kg/lm	3.39	3.86
kg/m²	4.46	5.08

NEXTEEL™ AM100

	0.42 BMT	0.48 BMT
kg/lm	3.48	3.94
kg/m²	4.58	5.18

NEXALUME™ AZ150

	0.42 BMT	0.48 BMT
kg/lm	3.39	3.86
kg/m²	4.46	5.08

FASTENER SPACING NON-CYCLONIC

As per NCC ABCB Housing Provisions Table 7.2.5, maximum roof lengths (m) for drainage measured from ridge to gutter, no allowance has been made for penetrations or water diversion.

CREST FASTENER LOCATION

4 Fasteners per Sheet - End Support

4 Fasteners per Sheet - Internal Support

VALLEY FASTENER LOCATION

4 Fasteners per Sheet - End Support

4 Fasteners per Sheet - Internal Support

NOTE: Side lap fasteners are optional when using 5 fasteners per sheet, but are a requirement when only using 3 fasteners per sheet for valleys.

SUGGESTED NON-CYCLONIC PIERCE FIXING

SUGGESTED REV 5 PLUS NON CYCLONIC PIERCE FIXING

TYPE	FIXING TO STEEL (UP TO 1.9mm)	FIXING TO STEEL (2.0mm - 3.5mm)	FIXING TO METAL BATTENS (0.55 - 1.0mm)	FIXING TO TIMBER
Crest Fixed	Self Drilling 12-14 × 68mm Hex Head HiGrip Teks w/- Seal	Self Drilling 12-14 × 68mm Hex Head HiGrip Teks w/- Seal	Self Drilling 12-14 × 68mm Hex Head HiGrip Teks w/- Seal	M6.2 - 13×65mm or 65mm T17 Timber
Valley Fixed	M6-11×25mm or 10-16×16mm Metal Teks Hex Head with Seal	M6-11×25mm or 10-16×16mm Metal Teks Hex Head with Seal	M6-11×25mm or 10-16×16mm Metal Teks Hex Head with Seal	M6-11×25mm Hex Head with Seal or T17×25mm Hex Head

NOTE: After exposure of cladding to extreme wind event, it is recommended that inspection to be performed to confirm cladding integrity.

INSULATION OPTIONS

Roof Blanket with a thickness up to 100mm can be installed under Rev 5 Plus without the requirement of a thermal spacer, the length of the fasteners may have to increase to compensate for the thickness of the insulation.

Noting the energy efficiency requirements of non-residential buildings may call for a thermal spacer on blanket of all sizes, this is governed by Section J of the National Construction Code.

STANDARD SPECIFICATION

COLORBOND® STEEL AM100

RELEVANT FOR COLORBOND® STEEL, COLORBOND® MATT STEEL PRODUCTS

Steel base thickness (0.42 or 0.48) with an Aluminium Zinc Magnesium Alloy Coated Steel with Activate® Technology Coating. COLORBOND® Steel AM100 Substrate compliance AS 1397:2021, and Paint Finish Substrate compliance AS/NZS 2728:2013 Type 3.

SUBSTRATE	Aluminium Zinc Magnesium Alloy Coated Steel with Activate® Technology - AS 1397:2021
COATING	AM100 = 100g per m² Minimum Metallic Coating Mass
PRIMER	Nominal 5µm Universal Corrosion Inhibitive Primer
PAINT	Nominal 20µm Finish Coat AS/NZS 2728:2013 Type 3
PROTECTIVE PLASTIC	Nominal 50µm CORSTRIP® (if required)

COLORBOND® STEEL AM150

RELEVANT FOR COLORBOND® STEEL ULTRA PRODUCTS

Steel base thickness (0.42 or 0.48) with an Aluminium Zinc Magnesium Alloy Coated Steel with Activate® Technology Coating. COLORBOND® AM150 Ultra Steel Substrate compliance AS 1397:2021, and Paint Finish Substrate compliance AS/NZS 2728:2013 Type 3.

SUBSTRATE	Aluminium Zinc Magnesium Alloy Coated Steel with Activate® Technology - AS 1397:2021
COATING	AM150 = 150g per m² Minimum Metallic Coating Mass
PRIMER	Nominal 5µm Universal Corrosion Inhibitive Primer
PAINT	Nominal 20µm Finish Coat AS/NZS 2728:2013 Type 3
PROTECTIVE PLASTIC	Nominal 50µm CORSTRIP® (if required)

NEXTEEL™ AM100

RELEVANT FOR NEXTSTAR™, NEXTSTAR™ MATT STEEL PRODUCTS

Steel base thickness (0.42 or 0.48) with an Aluminium Zinc Magnesium Alloy Coated Steel Coating. NEXTEEL™ AM100 Steel Substrate compliance AS 1397:2021, and Paint Finish Substrate compliance AS/NZS 2728 Type 4.

SUBSTRATE	Aluminium Zinc Magnesium Alloy Coated Steel - AS 1397:2021
COATING	AM100 = 100g per m² Minimum Metallic Coating Mass
PRIMER	Nominal 5µm Polyester
PAINT	Nominal 20µm Advanced Durability Polyester AS/NZS 2728 Type 4
PROTECTIVE PLASTIC	Nominal 50µm NextSTRIP (if required)

NEXTEEL™ AM150

RELEVANT FOR NEXTSTAR™ ULTRA STEEL PRODUCTS

Steel base thickness (0.42 or 0.48) with an Aluminium Zinc Magnesium Alloy Coated Steel Coating. NEXTEEL™ AM150 Steel Substrate compliance AS 1397:2021, and Paint Finish Substrate compliance AS/NZS 2728 Type 4.

SUBSTRATE	Aluminium Zinc Magnesium Alloy Coated Steel - AS 1397:2021
COATING	AM150 = 150g per m² Minimum Metallic Coating Mass
PRIMER	Nominal 5µm Polyester
PAINT	Nominal 20µm Advanced Durability Polyester AS/NZS 2728 Type 4
PROTECTIVE PLASTIC	Nominal 50µm NextSTRIP (if required)

STANDARD SPECIFICATION

ZINCALUME® AM125

Steel base thickness (0.42 or 0.48) with an Aluminium Zinc Magnesium Alloy Coated Steel Coating. Zincalume AM125 Substrate compliance AS 1397:2021, 125g per square metre minimum Metallic Coating Mass.

- **SUBSTRATE** Aluminium Zinc Magnesium Alloy Coated Steel - AS 1397:2021
- **COATING** AM125 = 125g per m² Minimum Metallic Coating Mass

NEXALUME AZ150

Steel base thickness (0.42 or 0.48) with a Hot-Dipped Aluminium Zinc Magnesium Alloy Coating. Nexalume AZ150 Substrate compliance AS 1397:2021, 150g per square metre minimum Metallic Coating Mass.

- **SUBSTRATE** Hot-Dipped Aluminium Zinc Magnesium Alloy Coated Steel - AS 1397:2021
- **COATING** AZ150 = 150g per m² Minimum Metallic Coating Mass

MARINE CLASSIFICATION

- **Class 1** (ISO 9223 Category C1): Rural areas far inland and remote from marine or industrial influence
- **Class 2** (ISO 9223 Category C2): Inland areas remote from the coast or areas of pollution
- **Class 3** (ISO 9223 Category C3): Coastal areas with low salinity
- **Class 4** (ISO 9223 Category C4): Severe marine which begins between 100m - 400m from breaking surf or 100m from calm marine.
- **Class 5** (ISO 9223 Category C5): Very severe marine: Close to breaking surf, typically 0 to 100m from breaking surf/exposed marine.
- **Class CX:** Extreme (as per AS 4312:2019): Rare classification, reserved for offshore structures and the most severe sea conditions

ISO 9223:2012

Corrosion of metals and alloys — Corrosivity of atmospheres — Classification, determination and estimation.