



**Revolution
Roofing**
STEEL YOURSELF

TRUE OAK 'DEEP 21MM'

REVSPEC

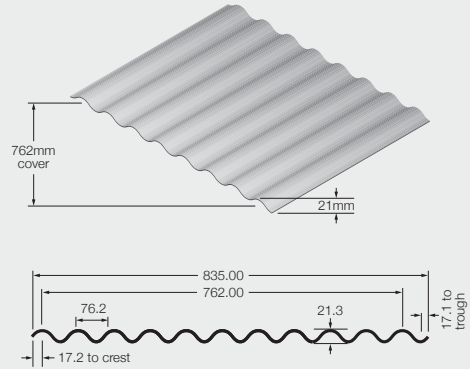
REVSPEC

V14.0

True Oak 'Deep 21mm'

OVERVIEW

Minimum Roof Pitch	3 Degrees
Maximum Sheet Length	24 Metres
Spring Curving	15m Minimum Radius
Mechanical Curving	150mm Minimum Radius
Watertight Guarantee	20 Years



PROFILE AVAILABLE

NSW	NT	QLD	TAS	SA	VIC	WA	CYCLONIC
✓	✓	✓	✓	✓	✓	✓	

AVAILABLE FINISHES

RevZinc AM125	HERITAGE GALVANISED	NEXTEEL	MATT FINISH	NextREME	METALLIC	ALUMINIUM	CORTEN	COPPER	STAINLESS STEEL
✓	✓	✓	✓	✓	✓	✓	✓	✓	
PERFORATED	FENCING	VICTORY							
✓	✓	✓							

GAUGES AVAILABLE

STEEL					ALUMINIUM	
0.32	0.35	0.42	0.48	0.60	0.70	0.80
✓	✓	✓	✓	✓	✓	✓

SPAN TABLE NON-CYCLONIC ROOF SHEETING

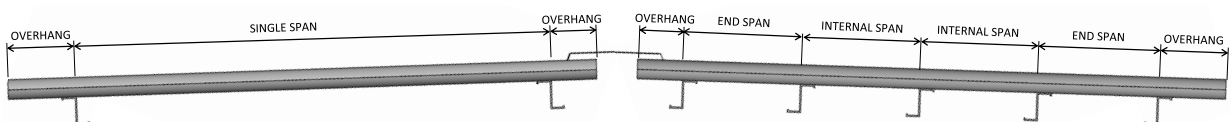
ROOF SPAN	0.35 BMT	0.42 BMT	0.48 BMT	0.60 BMT Trafficable	0.60 BMT Non-Trafficable
Single Span		1175	1500	1100	1500
End Span	900	1350	1700	1400	1900
Internal Span	1200	1500	2000	1800	2600
Unstiffened Overhang	100	200	200	300	300
Stiffened Overhang	200	420	480		

SPAN TABLE NON-CYCLONIC WALL CLADDING

WALL SPAN	0.35 BMT	0.42 BMT	0.48 BMT
End Span	1400	1900	2200
Internal Span	1800	2300	2800
Unsupported Cantileaver	300*	300*	300*

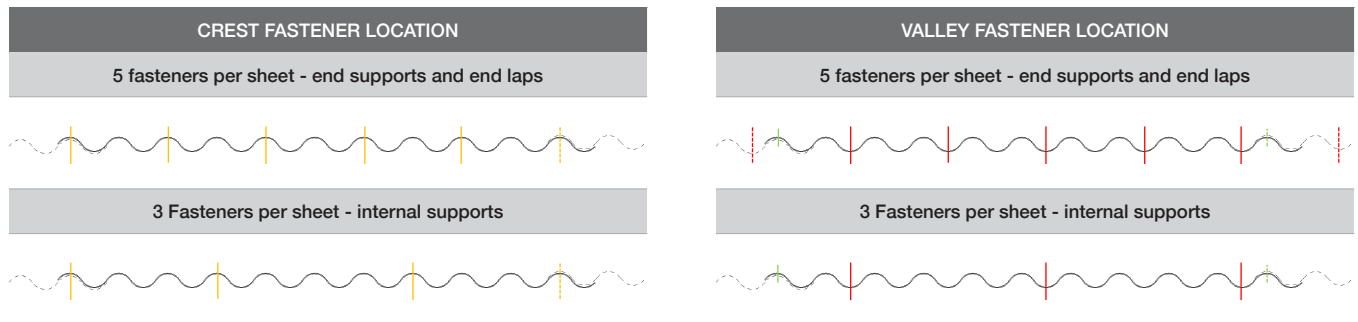
* Rivet required, securing the overlap, 50mm from the end of the sheet

SPAN DEFINITIONS



True Oak 'Deep 21mm'

FASTENER SPACING NON-CYCLONIC



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 True Oak 'Deep 21mm' 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	12 -14 x 35mm Metal Tekes	12-14 x 35mm Metal Tekes	M6 -11 x 50mm Roof Zips	M6 -11 x 50mm Roof Zips
Valley Fixed	M6 - 11x25mm or 10-16 x 16mm Metal Tekes Hexagon Head with Seal		M6 - 11x25mm or 10-16 x 16mm Metal Tekes Hexagon Head with Seal	M6 -11 x 25mm hexagon head with seal or T17 x 25mm Hex Head

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

INSULATION

Roof Blanket with a thickness up to 100mm can be installed under True Oak Deep 21mm 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.

MASSES

Heritage Galvanised

	0.42 BMT	0.48 BMT	0.60 BMT
kg/lm	3.92	4.39	5.26
kg/m2	5.15	5.76	6.91

RevZinc AM125

	0.42 BMT	0.48 BMT	0.60 BMT
kg/lm	3.39	3.86	4.74
kg/m2	4.45	5.07	6.22

Nexteel™

	0.35 BMT	0.42 BMT	0.48 BMT	0.60 BMT
kg/lm	2.89	3.48	3.94	4.81
kg/m2	3.79	4.57	5.17	6.31

True Oak 'Deep 21mm'

NON-CYCLONIC SERVICEABILITY AND STRENGTH

Non-Cyclonic True Oak 'Deep 21mm' 0.35 BMT					
NON-CYCLONIC wind uplift Resistance - Service and Strength Limit State Design					
Span (mm)	End Span		Span (mm)	Internal Span	
	Serviceability (kPa)	Strength (kPa)		Serviceability (kPa)	Strength (kPa)
900	0.82	5.65	1200	0.80	5.24
1200*	0.68	3.87	1500*	0.69	3.93
1500*	0.57	2.89	1800*	0.60	3.10
1800*	0.47	2.27	2100*	0.52	2.54

Non-Cyclonic True Oak 'Deep 21mm' 0.42 BMT					
NON-CYCLONIC wind uplift Resistance - Service and Strength Limit State Design					
Span (mm)	End Span		Span (mm)	Internal Span	
	Serviceability (kPa)	Strength (kPa)		Serviceability (kPa)	Strength (kPa)
900	1.46	6.69	1200	1.40	6.41
1200	1.17	4.66	1500	1.19	4.90
1500	0.95	3.25	1800	1.02	3.67
1800*	0.77	2.26	2100	0.87	2.63

Non-Cyclonic True Oak 'Deep 21mm' 0.48 BMT								
NON-CYCLONIC wind uplift Resistance - Service and Strength Limit State Design								
Span (mm)	Single Span		Span (mm)	End Span		Span (mm)	Internal Span	
	Serviceability (kPa)	Strength (kPa)		Serviceability (kPa)	Strength (kPa)		Serviceability (kPa)	Strength (kPa)
1200	2.77	10.93	900	2.15	6.46	1200	1.98	6.11
1500	1.44	9.30	1200	1.51	4.92	1500	1.51	4.95
1800*	0.84	7.96	1500	1.14	3.72	1800	1.21	3.99
2100*	0.54	6.84	1650	1.02	3.21	2100	1.01	3.19

* Spans exceed trafficable point load limits.

DESIGN PARAMETERS

Region	A
Terrain Category	2
Height	10 metre
Vz	45 m/sec
Q* _{u,s}	1.21/0.80 kPa
C _{pe}	+0.7 / -0.65
C _{pi}	-0.2 / +0.2

INTERNAL Bay	END Bay
K ₁ = 1.0	K ₁ = 2.0
∑C = -0.85	∑C = -1.50
	P _u = 1.82 kPa
	P _s = -1.21 kPa

TESTS CARRIED OUT IN ACCORDANCE WITH:

AS 1562.1:2018 Design and Installation of Sheet Roof and Wall Cladding - Metal

AS 4040:1992 Methods of Testing Sheet roof and wall cladding

TESTING STATIONS USED TO CONDUCT TESTING:

James Cook University
University of South Australia

True Oak 'Deep 21mm'

RAINWATER TABLES

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

True Oak 'Deep 21mm' - Rainfall Capacity

Roof Slope (degrees)	Rainfall Capacity (mm/hr)						
	100	150	200	250	300	350	400
1	24	16	12	9	8	6	6
2	34	22	17	13	11	9	8
3	41	27	20	16	13	11	10
4	48	32	24	19	16	13	12
5	54	36	27	21	18	15	13

Cross Sectional Area comparison per profile

	Effective Cross-Sectional Area (m ² / m)
Corrugated 16mm	1.249 x 10 ⁻³
True Oak 21mm	2.520 x 10 ⁻³
True Oak 'Super 5'	6.416 x 10 ⁻³
Rev5	11.85 x 10 ⁻³
Rev5 Plus	15.29 x 10 ⁻³
RevKlip 700	13.91 x 10 ⁻³
RevSpan 700	4.589 x 10 ⁻³

Relative Discharge x 10⁻⁶ m³ / s / m

Slope	Corrugated 16mm	True Oak 21mm	True Oak 'Super 5'	Rev5	Rev5 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

Rainfall Intensity per Location

Rainfall Intensity by Location (mm / hr)		
	Average recurrence (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 recurrence (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 recurrence (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

True Oak 'Deep 21mm'

STANDARD SPECIFICATION

RevZinc AM125

Steel base thickness {0.42, 0.48 BMT} with an aluminium / zinc / magnesium alloy coating complying with AS1397-2011 (550 MPa minimum yield strength, 125 grams per square metre minimum metallic coating mass)

Steel base thickness {0.60 BMT} with an aluminium / zinc / magnesium alloy coating complying with AS1397-2011 (300 MPa minimum yield strength, 125 grams per square metre minimum metallic coating mass)

Heritage Galvanised Z600

Heritage Galvanised is a {0.42} Z600 hot dipped zinc-coated structural steel complying with AS1397-2001 G550 (550MPa minimum yield stress), 600 grams per square metre minimum coating mass

Heritage Galvanised is a 0.60 Z600 hot dipped zinc-coated structural steel complying with AS1397-2001 G300 (300MPa minimum yield stress), 600 grams per square metre minimum coating mass

Nexteel™ Standard Painted Steel, Matt Finish, Metallic

Steel base metal thickness is {0.35, 0.42, or 0.48 BMT} with an aluminium / zinc alloy coating substrate complying to AS1397-2011 and paint coating complying to AS/NZS 2728 Type 4 (550 MPa minimum yield Strength)

Steel base metal thickness is {0.60 BMT} with an aluminium / zinc alloy coating substrate complying to AS1397-2011 and paint coating complying to AS/NZS 2728 Type 4 (300 MPa minimum yield Strength)

PAINT OPTIONS

NextONE™

Substrate:	Zinc Aluminium Alloy Coated Steel
Coating:	150 grams per m2 minimum metallic coating mass, nominally 75 gram per side
Primer:	Polyester
Paint:	Polyester topcoat nominally 25 microns
Additional Performance:	Enhanced UV stability
Protective Plastic Coating (if required):	75 microns thick

NextSTAR™

Substrate:	Zinc Aluminium Alloy Coated Steel
Coating:	AZ150 = 150 grams per m2 minimum metallic coating mass, nominally 75 gram per side
Primer:	Polyester
Paint:	Silicone Modified Polyester topcoat guaranteed thickness of 25 microns
Additional Performance Benefits:	Double UV stability and Ultra-Cool cool roof pigments
Protective Plastic Coating (if required):	75 microns thick

NextFACTOR™

Substrate:	Zinc Aluminium Alloy Coated Steel
Coating:	AZ150 = 150 grams per m2 minimum metallic coating mass, nominally 75 gram per side
Primer:	Urethane
Paint:	PVDF 70% topcoat guaranteed thickness of 25 microns
ColourLock Clear Coating:	XL Clear DFB nominally 13um
Additional Performance Benefits:	Double UV stability and Ultra-Cool cool roof pigments
Protective Plastic Coating (if required):	75 microns thick

True Oak 'Deep 21mm'

PAINT OPTIONS (CONT.)

NextREME 200™

Substrate:	Zinc Aluminium Alloy Coated Steel
Coating:	AZ200 = 200 grams per m2 minimum metallic coating mass, nominally 100 gram per side
Primer:	Polyester
Paint:	Silicone Modified Polyester with a topcoat guaranteed thickness of 25 microns
Additional Performance Benefits:	Double UV stability and Ultra-Cool cool roof pigments
Protective Plastic Coating (if required):	75 microns thick

NextREME SE™

Substrate:	Aluminium
Alloy:	5052 suitable for extreme coastal environments
Primer:	Urethane
Paint:	Silicone Modified Polyester with a topcoat guaranteed thickness of 25 microns
Additional Performance Benefits:	Double UV stability and Ultra-Cool cool roof pigments
Protective Plastic Coating (if required):	75 microns thick

NextREME XC™

Substrate:	Aluminium
Alloy:	5052 suitable for extreme coastal environments
Primer:	Urethane
Paint:	PVDF 70% with a topcoat guaranteed thickness of 25 microns
ColourLock Clear Coating:	XL Clear DFB nominally 13um
Additional Performance Benefits:	Double UV stability and Ultra Cool roof pigments
Protective Plastic Coating (if required):	75 microns thick

ISO 9223:2012

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

MARINE CLASSIFICATION

Select from the following exposure severity category:

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