

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

MAXIMUM SPAN (mm) TABLES FOR TIMBER & STEEL
SUPPORT BMT ≥ 1.5mm

SGL.=SINGLE SPAN, END=END SPAN, INT.=INTERNAL SPAN

BUILDING HEIGHT	TERRAIN CATEGORY	K1	pz (kPa)	0.42 BMT			0.48 BMT		
				SGL.	END	INT.	SGL.	END	INT.
UP TO 5M	1	1	4.57	1150	1120	1410	1340	1250	1560
		1.5	5.86	1020	970	1210	1150	1070	1340
		2	7.15	890	850	850	990	900	940
	2	1	3.44	1300	1310	1640	1520	1470	1820
		1.5	4.40	1170	1140	1430	1360	1280	1600
		2	5.37	1070	1030	1280	1210	1130	1420
	2.5	1	7.30	870	840	840	970	890	890
		1.5	3.49	1290	1300	1630	1510	1460	1800
		2	4.91	1120	1080	1350	1280	1190	1490
	3	1	6.67	930	880	880	1050	960	1220
		1.5	2.86	1390	1450	1800	1640	1660	2060
		2	3.66	1270	1260	1580	1480	1420	1760
	4	1	4.47	1160	1130	1420	1350	1270	1580
		2	6.07	1000	950	1130	1120	1040	1310
		3	2.33	1470	1630	2030	1760	1880	2220
UP TO 10M	1	1.5	2.99	1370	1420	1760	1620	1610	2000
		2	3.61	1270	1260	1590	1480	1430	1760
		3	4.96	1110	1080	1350	1280	1180	1480
	2	1	5.20	1090	1050	1310	1240	1150	1440
		1.5	6.67	930	880	880	1050	960	1220
		2	8.13	810	770	770	870	820	820
	2.5	1	11.06	N/A	N/A	N/A	450	450	450
		1.5	4.15	1190	1170	1470	1400	1330	1650
		2	5.32	1070	1030	1290	1220	1140	1420
	3	1	6.48	950	900	910	1070	990	1250
		2	8.81	750	730	730	800	760	760
		3	11.06	N/A	N/A	N/A	450	450	450
	4	1	3.51	1290	1300	1620	1510	1450	1800
		1.5	4.50	1160	1130	1420	1350	1260	1580
		2	5.49	1060	1010	1210	1190	1110	1400
	3	1	7.46	860	830	830	950	870	870
		1.5	2.86	1390	1450	1800	1640	1660	2060
		2	3.66	1270	1260	1580	1480	1420	1760
	4	1	4.47	1160	1130	1420	1350	1270	1580
		2	6.07	1000	950	1130	1120	1040	1310
		3	2.33	1470	1630	2030	1760	1880	2220
	4	1.5	2.99	1370	1420	1760	1620	1610	2000
		2	3.65	1270	1260	1590	1480	1430	1760
		3	4.96	1110	1080	1350	1280	1180	1480

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	2.5	1	11.06	N/A	N/A	N/A	450	450	450
		1.5	4.15	1190	1170	1470	1400	1330	1650
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		2	5.37	1070	1030	1280	1210	1130	1420
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		2	8.13	810	770	770	870	820	820
	2.5	1	11.06	N/A	N/A	N/A	450	450	450
		1.5	4.15	1190	1170	1470	1400	1330	1650
		2	5.32	1070	1030	1290	1220	1140	1420
	3	1	6.48	950	900	910	1070	990	1250
		2	8.81	750	730	730	800	760	760
		3	11.06	N/A	N/A	N/A	450	450	450
	4	1	3.51	1290	1300	1620	1510	1450	1800
		1.5	4.50	1160	1130	1420	1350	1260	1580
		2	5.49	1060	1010	1210	1190	1110	1400
	3	1	7.46	860	830	830	950	870	870
		1.5	2.86	1390	1450	1800	1640	1660	2060
		2	3.66	1270	1260	1580	1480	1420	1760
	4	1	4.47	1160	1130	1420	1350	1270	1580
		2	6.07	1000	950	1130	1120	1040	1310
		3	2.33	1470	1630	2030	1760	1880	2220
	4	1.5	2.99	1370	1420	1760	1620	1610	2000
		2	3.65	1270	1260	1590	1480	1430	1760
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MAXIMUM BATTEN SPACING TABLES FOR 0.75mm & 1.0mm BMT STEEL BATTENS (mm)																				
BUILDING HEIGHT	TERRAIN CATEGORY	K1	pz (kPa)	TS4075					TS6175					TS6110						
				BATTEN SPAN (SUPPORT SPACING), mm					BATTEN SPAN (SUPPORT SPACING), mm					BATTEN SPAN (SUPPORT SPACING), mm						
				≤ 600	900	1200	1500	1800	≤1500	2000	2500	3000	3500	4000	≤1500	2000	2500	3000	3500	4000
UP TO 5M	1	1	4.57	1135	805	525	400	270	785	585	320	245	205	N/A	785	585	470	360	260	205
		1.5	5.86	885	625	410	310	210	610	455	250	N/A	N/A	N/A	610	455	365	280	200	N/A
		2	7.15	725	510	335	255	N/A	500	370	205	N/A	N/A	N/A	500	375	300	230	N/A	N/A
	3	9.72	535	375	245	N/A	N/A	365	275	N/A	N/A	N/A	N/A	365	275	220	N/A	N/A	N/A	
	2	1	3.44	1510	1065	700	530	360	1040	775	430	325	270	215	1040	780	625	480	345	270
		1.5	4.40	1180	835	545	415	280	815	605	335	255	210	N/A	815	610	490	375	270	210
		2	5.37	965	685	445	340	230	665	495	275	210	N/A	N/A	665	500	400	305	220	N/A
	3	7.30	710	500	330	250	N/A	490	365	200	N/A	N/A	N/A	490	365	295	225	N/A	N/A	
	2.5	1	3.49	1490	1050	690	520	355	1025	765	420	320	265	210	1025	770	615	475	340	265
		1.5	4.02	1295	915	595	455	310	890	665	365	280	230	N/A	890	665	535	410	295	230
		2	4.91	1060	745	490	370	250	730	545	300	230	N/A	N/A	730	545	435	335	240	N/A
	3	6.67	780	550	360	270	N/A	535	400	220	N/A	N/A	N/A	535	400	320	245	N/A	N/A	
	3	1	2.86	1820	1285	840	635	435	1255	935	515	395	325	255	1255	940	755	580	415	325
		1.5	3.66	1420	1005	655	500	340	980	730	400	305	255	200	980	730	590	450	325	255
		2	4.47	1160	820	535	405	275	800	595	330	250	210	N/A	800	600	480	370	265	210
	3	6.07	855	605	395	300	205	590	440	240	N/A	N/A	N/A	590	440	355	270	N/A	N/A	
	4	1	2.33	2230	1575	1030	785	535	1540	1150	635	480	400	315	1540	1150	925	710	515	400
		1.5	2.99	1740	1230	805	610	415	1200	895	490	375	310	245	1200	895	720	555	400	310
		2	3.65	1425	1005	660	500	340	980	730	405	305	255	200	980	735	590	450	325	255
	3	4.96	1045	740	485	365	250	720	540	295	225	N/A	N/A	720	540	435	330	240	N/A	
UP TO 10M	1	1	5.20	1000	705	460	350	240	690	515	280	215	N/A	N/A	690	515	415	315	230	N/A
		1.5	6.67	780	550	360	270	N/A	535	400	220	N/A	N/A	N/A	535	400	320	245	N/A	N/A
		2	8.13	640	450	295	225	N/A	440	325	N/A	N/A	N/A	N/A	440	330	265	200	N/A	N/A
		3	11.06	470	330	215	N/A	N/A	320	240	N/A	N/A	N/A	N/A	320	240	N/A	N/A	N/A	N/A
	2	1	4.15	1250	885	580	440	300	865	645	355	270	225	N/A	865	645	520	400	285	225
		1.5	5.32	975	690	450	340	230	670	500	275	210	N/A	N/A	670	505	405	310	225	N/A
		2	6.48	800	565	370	280	N/A	550	410	225	N/A	N/A	N/A	550	415	330	255	N/A	N/A
		3	8.82	590	415	270	205	N/A	405	300	N/A	N/A	N/A	N/A	405	300	240	N/A	N/A	N/A
	2.5	1	3.51	1480	1045	685	520	355	1020	760	420	320	265	210	1020	765	615	470	340	265
		1.5	4.50	1155	815	535	405	275	795	595	325	250	205	N/A	795	595	480	365	265	205
		2	5.49	945	670	435	330	225	650	485	265	205	N/A	N/A	650	485	390	300	215	N/A
		3	7.46	695	490	320	245	N/A	480	355	N/A	N/A	N/A	N/A	480	360	285	220	N/A	N/A
	3	1	2.86	1820	1285	840	635	435	1255	935	515	395	325	255	1255	940	755	580	415	325
		1.5	3.66	1420	1005	655	500	340	980	730	400	305	255	200	980	730	590	450	325	255
		2	4.47	1160	820	535	405	275	800	595	330	250	210	N/A	800	600	480	370	265	210
		3	6.07	855	605	395	300	205	590	440	240	N/A	N/A	N/A	590	440	355	270	N/A	N/A
	4	1	2.33	2230	1575	1030	785	535	1540	1150	635	480	400	315	1540	1150	925	710	515	400
		1.5	2.99	1740	1230	805	610	415	1200	895	490	375	310	245	1200	895	720	555	400	310
		2	3.65	1425	1005	660	500	340	980	730	405	305	255	200	980	735	590	450	325	255
		3	4.96	1045	740	485	365	250	720	540	295	225	N/A	N/A	720	540	435	330	240	N/A

TS6175, TS6110 DESIGN CAPACITY TABLE - OUTWARD, CONTINUOUS/LAPPED SPAN
ULTIMATE LIMIT STATE LOAD (kN/m)

SPAN (mm)	MEMBER STRENGTH (kN/m)		2 FASTENER CAPACITY (kN/m) SUPPORT THICKNESS (mm/bmt)				4 FASTENER CAPACITY (kN/m) SUPPORT THICKNESS (mm/bmt)			
	TS6175	TS6110	#14(M6.5)-12x30		#14-10x25		#14(M6.5)-12x30		#14-10x25	
			1.0mm	1.2mm	1.5mm	1.9mm	1.0mm	1.2mm	1.5mm	1.9mm
≤1500	4.31	5.88	1.90	2.48	3.10	4.12	2.67	3.59	4.52	5.41
2000	2.68	2.91	1.43	1.86	2.33	3.09	2.01	2.69	3.39	4.06
2500	1.48	2.17	1.14	1.49	1.86	2.47	1.60	2.16	2.71	3.25
3000	1.13	1.66	0.95	1.24	1.55	2.06	1.34	1.80	2.26	2.71
3500	0.94	1.20	0.82	1.06	1.33	1.76	1.15	1.54	1.94	2.32
4000	0.74	0.94	0.71	0.93	1.16	1.54	1.00	1.35	1.69	2.03

TS4075 DESIGN CAPACITY TABLE - OUTWARD, CONTINUOUS SPAN
ULTIMATE LIMIT STATE LOAD (kN/m)

SPAN (mm)	MEMBER STRENGTH kN/m	2 FASTENER CAPACITY (kN/m) SUPPORT THICKNESS (mm/bmt)				4 FASTENER CAPACITY (kN/m) SUPPORT THICKNESS (mm/bmt)			
		#14(M6.5)-12x30		#14-10x25		#14(M6.5)-12x30		#14-10x25	
	TS4075	1.0mm	1.2mm	1.5mm	1.9mm	1.0mm	1.2mm	1.5mm	1.9mm
≤ 600	7.98	5.51	7.19	8.99	11.93	7.75	10.41	13.09	15.69
900	4.72	3.68	4.79	5.99	7.95	5.16	6.94	8.73	10.46
1200	2.41	2.76	3.59	4.49	5.96	3.87	5.21	6.54	7.84
1500	1.83	2.21	2.88	3.60	4.77	3.10	4.16	5.24	6.27
1800	1.25	1.84	2.40	3.00	3.98	2.58	3.47	4.36	5.23

NOTES:

REFER TO “TOPSPAN 61 ROOFING BATTENS FOR CYCLONIC REGIONS” & “TOPSPAN 4075 ROOFING BATTENS FOR CYCLONIC REGION FOR BATTEN” DTCM DRAWINGS FOR DIMENSIONS, SPACING, SPANS, CONNECTIONS DETAILS AND TEST REPORTS.

BATTEN SPACING TABLE NOTES:

- MAXIMUM SPACING COULD BE GOVERNED BY CAPACITY OF BATTENS AND THEIR CONNECTIONS TO SUPPORTING RAFTERS/TRUSSES AS WELL AS PULL-OUT CAPACITIES OF FASTENERS CONNECTING FIELDERS CLADDINGS TO BATTEN.
- SPACING OF BATTENS SHALL NOT EXCEED BOTH MAXIMUM SPAN AND MAXIMUM SUPPORT SPACING OF CLADDING AS GIVEN IN SHEET 1.
- FASTENER REQUIREMENTS FOR FIXING **TS4075** TO SUPPORTS IN BATTEN SPACING TABLE:
STEEL SUPPORTS:
 - 1.00mm BMT: 2x #14(M6.5)-12X30 CYCLONIC ROOF ZIPS®
 - 1.20~1.9mm BMT: 2x #14-10X25 HEX. HEAD SELF DRILLING SELF TAPPING TEKS®
 - 'BUILDEX' M6.5-12X30 CYCLONIC ROOF ZIPS = #14-12X30 CYCLONIC ROOF ZIPSTIMBER SUPPORTS:
 - 2x 'BUILDEX' #12(M5.5)-11x40 BATTENZIPS
- FASTENER REQUIREMENTS FOR FIXING **TS6175** OR **TS6110** TO SUPPORTS IN BATTEN SPACING TABLE:
 - STEEL SUPPORT 1.20~1.9mm BMT: 4x #14-10X25 HEX. HEAD SELF DRILLING SELF TAPPING TEKS®
 - TIMBER SUPPORTS: 4x 'BUILDEX' #12(M5.5)-11x40 BATTENZIPS

DESIGN CAPACITY TABLE NOTES:

- STEEL SUPPORT FASTENER SPECIFICATION:
 - 1.00mm BMT: #14(M6.5)-12X30 CYCLONIC ROOF ZIPS®
 - 1.20~1.9mm BMT: #14-10X25 HEX. HEAD SELF DRILLING SELF TAPPING TEKS®
 - 'BUILDEX' M6.5-12X30 CYCLONIC ROOF ZIPS = #14-12X30 CYCLONIC ROOF ZIPS
- TIMBER SUPPORT FASTENER SPECIFICATION: 'BUILDEX' #12(M5.5)-11x40 BATTENZIPS
- DESIGN CAPACITY TABLE CAN BE USED TO DESIGN TS4075, TS6175 & TS6110 WITH TIMBER SUPPORTS:
 - 2 FASTENER CONNECTION: SOFTWOOD TIMBER = 1.5mm bmt STEEL SUPPORT, HARDWOOD TIMBER = 1.9mm bmt STEEL SUPPORT.
 - 4 FASTENER CONNECTION: HARDWOOD/SOFTWOOD TIMBER SUPPORT = 1.9bmt STEEL SUPPORT.
- OUTWARD CAPACITY SHALL BE LIMITED BY THE MINIMUM VALUE BETWEEN MEMBER STRENGTH AND FASTENERS CAPACITY.
- TS4075** BATTEN SHALL BE CONTINUOUS OVER AT LEAST 2 SPANS, LAPPED 40mm MINIMUM AT THE SUPPORT (TRUSS OR RAFTER) LOCATIONS.
- TS6175** AND **TS6110** BATTENS SHALL BE CONTINUOUS OVER AT LEAST 2 SPANS, STRUCTURAL LAPPING DISTANCE AT SUPPORT IS MINIMUM 15% OF THE LONGER SPAN. NON STRUCTURAL LAPPING DISTANCE IS 40mm MINIMUM AT THE SUPPORT (TRUSS OR RAFTER) LOCATIONS.

Product Name

TL-5 - ROOFING FOR CYCLONIC REGIONS - SHEET 2 OF 2

Product Description

TL-5 ROOFING IS MANUFACTURED FROM 0.42mm & 0.48mm BMT G550, AM125 ZINCALUME, AM100 COLORBOND, AM150 COLORBOND ULTRA. Z600 HERITAGE GALVANISED MATERIAL IS AVAILABLE IN SOME LOCATIONS.

Manufacturer's Name

FIELDERS AUSTRALIA PTY LTD
15 RAILWAY TERRACE, MILE END SOUTH
S.A. 5031



DESIGN CRITERIA

TL-5 COMPLIES WITH AUSTRALIAN STANDARDS FOR THE FOLLOWING REQUIREMENTS:

- A. WIND LOADING: AS/NZS 1170.2: 2011 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTION (INCORPORATING AMENDMENT No. 1, 2, 3, 4 & 5)
- WIND LOAD DESIGN CRITERIA:
- IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS
 - WIND REGION 'C', VR = 66xFc = 66x1.05 = 69.3 m/sec
 - Ms = Mt = Md = 1.0
 - Cpe = -0.9/+0.4; Cpi = +0.7/-0.65 Kce & Kci = 0.9
 - HEIGHT MULTIPLIERS FROM TABLE 4.1 OF AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS (INCORPORATING AMENDMENT No. 1, 2, 3, 4 & 5) HAVE BEEN USED TO GENERATE THE TABLES.

HEIGHT (m)	TERRAIN / HEIGHT MULTIPLIER (Mz,cat)				
	1	2	2.5	3	4
<=5	1.05	0.91	0.87	0.83	0.75
<=10	1.12	1.00	0.92	0.83	0.75

- B. CONCENTRATED LOAD AT MAXIMUM SPAN: AS 4040.0-1992: METHODS OF TESTING SHEET ROOF AND WALL CLADDING - INTRODUCTION, LIST OF METHODS AND GENERAL REQUIREMENTS; AS 4040.1-1992: METHODS OF TESTING SHEET ROOF AND WALL CLADDING - RESISTANCE TO CONCENTRATED LOADS. UNFACTORED LOAD-1.1 KN
- C. SERVICEABILITY: AS/NZS 1170.0: 2002 STRUCTURAL DESIGN ACTIONS PART 0: GENERAL PRINCIPLES (INCORPORATING AMENDMENT 1, 2, 3, 4 & 5)
- D. TIMBER STRENGTH GROUPS: AS 1720.2: 2006 TIMBER STRUCTURES PART 2: TIMBER PROPERTIES