

NORTHERN TERRITORY DEEMED TO COMPLY MANUAL - National Construction Code (NCC) Volume 2

This product has been determined to satisfy NCC Performance Requirement H1P1 for structural resistance of materials and forms of construction in high wind areas

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	4.23	14.60	1290	1420	1680	1420	1600
		1.5	5.42	1260	1040	1100	1410	1130	1170
		2	6.61	1130	840	880	1200	980	1010
	2	1	3.44	1670	1500	1720	1920	1710	1890
		1.5	4.40	1430	1240	1360	1630	1370	1530
		2	5.37	1270	1050	1110	1420	1140	1180
	2.5	1	3.49	1650	1480	1700	1900	1690	1880
		1.5	4.02	1500	1340	1500	1730	1490	1680
		2	4.91	1350	1130	1190	1510	1200	1330
	3	1	6.67	1120	830	870	1190	980	1010
		1	2.86	1800	1770	1970	2100	1940	2100
		1.5	3.66	1600	1440	1630	1830	1620	1810
4	1	4.47	1420	1220	1340	1620	1350	1500	
	2	6.07	1170	920	980	1300	1050	1080	
	1	2.33	1800	1800	2100	2100	2100	2100	
UP TO 10M	1	1.5	2.99	1800	1710	1910	2090	1890	2060
		2	3.65	1610	1440	1640	1830	1630	1820
		3	4.96	1340	1120	1180	1500	1190	1310
	2	1	4.84	1360	1150	1210	1520	1230	1360
		1.5	6.20	1160	890	950	1280	1030	1070
		2	7.56	1050	720	740	1110	880	890
	2.5	3	10.28	N/A	N/A	N/A	810	670	670
		1	4.15	1480	1310	1450	1700	1450	1630
		1.5	5.32	1280	1060	1120	1430	1150	1180
	3	2	6.48	1140	860	900	1230	1000	1030
		3	8.82	940	N/A	N/A	1000	780	790
		1	3.51	1650	1480	1690	1890	1680	1870
4	1.5	4.50	1420	1220	1330	1610	1340	1490	
	2	5.49	1250	1020	1080	1400	1130	1160	
	3	7.46	1060	730	760	1120	880	900	
1	1	2.86	1800	1770	1970	2100	1940	2100	
	1.5	3.66	1600	1440	1630	1830	1620	1810	
	2	4.47	1420	1220	1340	1620	1350	1500	
2	3	6.07	1170	920	980	1300	1050	1080	
	1	2.33	1800	1800	2100	2100	2100	2100	
	1.5	2.99	1800	1710	1910	2090	1890	2060	
3	2	3.65	1610	1440	1640	1830	1630	1820	
	3	4.96	1340	1120	1180	1500	1190	1310	

SPAN TYPE



ROOF DESIGN CAPACITY TABLES

ULTIMATE LIMIT STATE PRESSURE (kPa)

SPAN (mm)	0.42 BMT			0.48 BMT		
	SINGLE	END	INTERNAL	SINGLE	END	INTERNAL
600	9.45	8.55	8.55	11.25	11.25	11.25
900	9.35	6.18	6.52	9.90	7.30	7.50
1200	5.83	4.58	4.89	6.66	4.94	5.24
1500	4.04	3.45	4.02	4.98	4.03	4.49
1800	2.99	2.81	3.24	3.75	3.21	3.71
2100	N/A	N/A	2.57	2.98	2.50	2.89

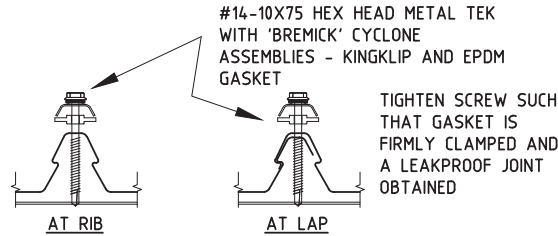
SERVICEABILITY LIMIT STATE PRESSURES CAN BE OBTAINED BY MULTIPLYING THE VALUES IN THE TABLE ABOVE BY 0.46.

MAXIMUM ROOF SUPPORT SPACING (mm)

SPAN TYPE	0.42 BMT	0.48 BMT
END	2000	2600
INTERNAL	2500	3000*
SINGLE	1600	2000

THE MAXIMUM SUPPORT SPACING CONSIDERS LIGHT ROOF TRAFFIC FROM INCIDENTAL MAINTENANCE. * LONG SPANS REQUIRED PARTICULAR ATTENTION TO INSTALLATION PRACTICE.

CREST FIXING DETAILS

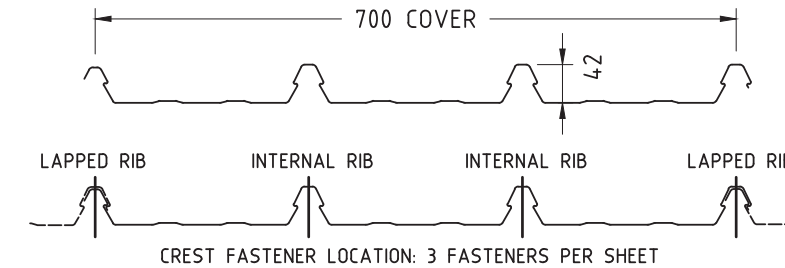


#14-10X75 HEX HEAD METAL TEK WITH 'BREMICK' CYCLONE ASSEMBLIES - KINGKLIP AND EPDM GASKET

TIGHTEN SCREW SUCH THAT GASKET IS FIRMLY CLAMPED AND A LEAKPROOF JOINT OBTAINED

'BREMICK' CYCLONE PLATE - KINGKLIP, CLASS-4, G300, MIN. DIMN: 27x33x1.0mm

GASKET: BLACK E.P.D.M. 40-45 DUROMETER



CREST FASTENER LOCATION: 3 FASTENERS PER SHEET

RECOMMENDED ROOF FASTENERS FOR STEEL SUPPORTS

SCREW NOTATION CODE:	STEEL THICKNESS	CLASS 4 - SELF DRILLING & TAPPING HEX HEAD SCREW WITH EPDM SEAL
HH DENOTED - HEX. HEAD	SINGLE: 1.0mm UP TO 3.0mm bmt	#14 - 10 x 75 HH (CREST FIX)
T17 " - TYPE 17	SINGLE/LAPPED: 0.75mm UP TO 1.0mm bmt (total 2.0mm)	#14 - 10 x 75 HH (CREST FIX)
HG " - HIGH GRIP	LAPPED: 1.0mm UP TO 1.9mm bmt (total 3.8mm)	#14 - 10 x 75 HH (CREST FIX)
TG " - TOP GRIP		

RECOMMENDED ROOF FASTENERS FOR TIMBER SUPPORTS

STRENGTH GROUP	CLASS 4 - SELF DRILLING HEX HEAD SCREW WITH EPDM SEAL
HARDWOOD J1-J3	#12 - 11 x 75 T17 HG/TG HH (CREST FIX)
SOFTWOOD J4	#14 - 10 x 75 T17 HH (CREST FIX)

- Notes covering basis of DTC (Relevant test reports etc)
- CYCLONIC TESTS OF KINGKLIP 700 ROOF SHEETING, REPORT REF. No. C070503, 03 DEC. 2007. TESTING CONDUCTED BY ENGTST-UNIVERSITY OF ADELAIDE, TEST REPORT PREPARED FOR TREVOR JOHN & ASSOCIATES PTY LTD.
 - STATIC & CYCLIC FATIGUE WITHDRAWAL CAPACITIES OF SELF DRILLING SCREWS IN TIMBER SUPPORTS. REPORT: 5.1.2-REPORT 05. DECEMBER 2010. BLUESCOPE LYSAGHT No 27 STERLING RD, MINCHINBURY 2770 NSW - AUSTRALIA.
 - SCREW PULLOUT CAPACITIES TO BUILDING CODES OF AUSTRALIA'S LOW-HIGH-LOW CYCLONIC TEST REGIME. REPORT: 5.1.2 - REPORT 02. SEPTEMBER 2009. BLUESCOPE LYSAGHT No 27 STERLING RD, MINCHINBURY 2770 NSW - AUSTRALIA.

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Product Name

KINGKLIP 700 - RIB FASTENED ROOFING FOR CYCLONIC REGIONS - SHEET 1 OF 2

Product Description

KINGKLIP 700 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 Details

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



Design Criteria

KINGKLIP 700 COMPLIES WITH AUSTRALIAN STANDARDS FOR THE FOLLOWING REQUIREMENTS:

- WIND LOADING: AS/NZS 1170.2: 2021 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTION
WIND LOAD DESIGN CRITERIA:
1. IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS
2. WIND REGION VR = 46 m/sec
3. Ms = Mt = Md = 1.0, Mc = 1.05
4. Cpe = -0.9; Cpi = -0.7 Kze & Kzi = 0.9
5. HEIGHT MULTIPLIERS FROM TABLE 4.1 OF AS/NZS 1170.2:2021 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS HAVE BEEN USED TO GENERATE THE TABLES.
- | HEIGHT (m) | TERRAIN / HEIGHT MULTIPLIER (Mz,cat) | | | | |
|------------|--------------------------------------|------|------|------|------|
| | 1 | 2 | 2.5 | 3 | 4 |
| <=5 | 1.01 | 0.91 | 0.87 | 0.83 | 0.75 |
| <=10 | 1.08 | 1.00 | 0.92 | 0.83 | 0.75 |
- 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
 - SERVICEABILITY: AS/NZS 1170.0: 2002 STRUCTURAL DESIGN ACTIONS PART 0: GENERAL PRINCIPLES (INCORPORATING AMENDMENT 1, 2, 3, 4 & 5)
 - TIMBER STRENGTH GROUPS: AS 1720.2: 2004 TIMBER STRUCTURES PART 2: TIMBER PROPERTIES (INCORPORATING AMENDMENT No. 1).
 - PRODUCT METALLIC COATING COMPLIES WITH AS 1397-2021: CONTINUOUS HOT-DIP METALLIC COATED STEEL SHEET AND STRIP - COATINGS OF ZINC AND ZINC ALLOYED WITH ALUMINUM AND MAGNESIUM & AS/NZS 2778: 2013 PREFINISHED/PREPANATED SHEET METAL PRODUCTS FOR INTERIOR/EXTERIOR BUILDING APPLICATIONS - PERFORMANCE REQUIREMENTS
 - INTERPOLATION OF CAPACITY AND SPACING VALUES IS PERMITTED.
 - DESIGN TABLES ARE BASED ON THE TEST RESULTS IN ACCORDANCE WITH NCC 2022 BUILDING CODE OF AUSTRALIA REQUIREMENTS FOR "LH" CYCLONIC TEST FOR METAL ROOFS AND RELEVANT CLAUSES OF AS/NZS 4600: 2018 COLD-FORMED STEEL STRUCTURES.

Limitations

- ONLY FASTENERS NOTED ON THIS DTCS CAN BE USED FOR FIXING. ALL FASTENERS ARE TO BE CLASS 4 IN ACCORDANCE TO AS 3566.2-2002 SELF-DRILLING SCREWS FOR THE BUILDING AND CONSTRUCTION INDUSTRIES PART 2: CORROSION RESISTANCE REQUIREMENTS.
- THE DATA IN THIS SHEET SHALL BE APPLICABLE TO KINGKLIP 700 ROOFING ONLY. PROFILE DIMENSIONS OF KINGKLIP 700 AS SUPPLIED FOR INSTALLATION SHALL COMPLY WITH KINGKLIP 700 PRODUCT DRAWINGS AS DEVELOPED BY FIELDERS.
https://specifying.fielders.com.au/roofing-walling/cyclonic/kingklip-700-cyclonic/#Rainfall_Capacity
- MAXIMUM KINGKLIP 700 ROOF LENGTHS AS RELATED TO RAINWATER CARRYING CAPACITY & ROOF PITCH SHALL BE DETERMINED USING THE FIELDERS ROOFING & WALLING MANUAL.
<https://specifying.fielders.com.au/roofing-walling/cyclonic/kingklip-700-cyclonic/>
- MAXIMUM BATTEN SPACING TABLES ARE BASED ON MAXIMUM ROOF HEIGHT (h) = 10M.
- Pz (PRESSURE) IN THE TABLES SHALL BE INCREASED ACCORDING TO AS/NZS 1170.2:2021 CLAUSE 5.4.1 WHERE h/d >= 0.5
- INSTALLATION SHALL BE IN ACCORDANCE WITH FIELDERS KINGKLIP 700 DESIGN MANUAL.
<https://specifying.fielders.com.au/roofing-walling/cyclonic/kingklip-700-cyclonic/>

Accepted for inclusion in Deemed to Comply Manual

DTCM drawing number: M/379/01

Chairperson Signature:

Chairperson Name: Paul Nowland

Date of Approval: 19/03/2024 Expiry Date: 19/03/2029

