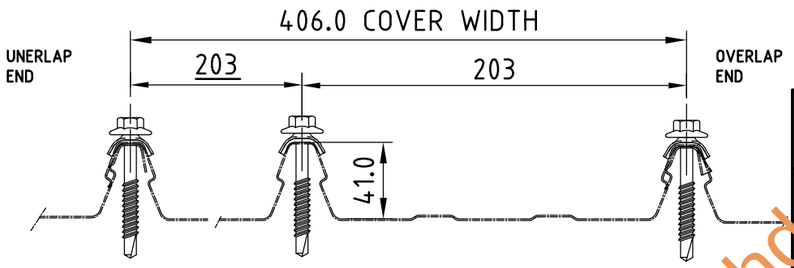
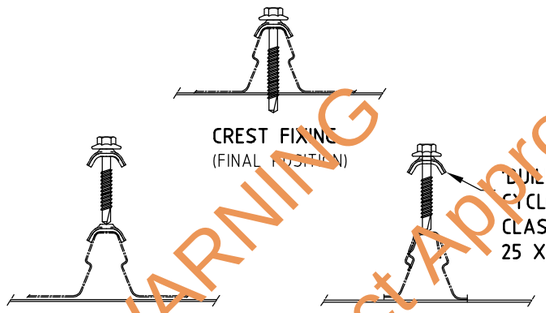
IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENTS P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.



KLIPLOK 406 HIGH WIND



ROOF DESIGN CAPACITY TABLES

KLIPLOK 406 HIGH WIND: 0.7 BMT

– ULTIMATE LIMIT STATE PRESSURE (kPa)

SPAN mm	CREST FASTENED WITH CYCLONIC WASHERS	
	END	INTERNAL
600	12.00	12.00
900	9.70	11.94
1200	7.31	8.96
1500	5.37	7.31
1800	4.18	5.52
1900	3.88	5.07
2100	3.43	4.48
2400	2.99	3.73

KLIPLOK 406 HIGH WIND: 0.55 BMT

– ULTIMATE LIMIT STATE PRESSURE (kPa)

SPAN	CREST FASTENED WITH CYCLONIC WASHERS	
	END	INTERNAL
600	12.00	12.00
900	9.27	10.60
1200	6.98	7.91
1500	4.93	6.27
1800	3.88	5.07
1900	3.58	4.78

MAXIMUM SPAN TABLES

BUILDING HEIGHT	TERRAIN CATEGORY	Kl	Mt = 1.0 pz (kPa)	Mt = 1.0 0.55 bmt END	Mt = 1.0 0.55 bmt INTERNAL	Mt = 1.0 0.7 bmt END	Mt = 1.0 0.7 bmt INTERNAL	Mt = 1.3 pz (kPa)	Mt = 1.3 0.55 bmt END	Mt = 1.3 0.55 bmt INTERNAL	Mt = 1.3 0.7 bmt END	Mt = 1.3 0.7 bmt INTERNAL
UP TO 5M	1	1	4.57	1600	1900	1700	2060	7.72	1100	1230	1140	1420
		1.5	5.86	1360	1600	1420	1740	9.90	830	970	870	1100
		2	7.15	1170	1330	1220	1520	12.08	N/A	N/A	N/A	N/A
		3	9.72	850	990	890	1120	16.43	N/A	N/A	N/A	N/A
	2	1	3.44	1900	1900	1900	1900	5.81	1360	1610	1430	1750
		1.5	4.40	1650	1900	1740	1900	7.44	1130	1280	1180	1470
		2	5.37	1430	1720	1500	1830	9.08	920	1060	970	1180
		3	7.30	1150	1310	1200	1500	12.34	N/A	N/A	N/A	N/A
	2.5	1	3.49	1900	1900	2070	2400	5.90	1350	1590	1410	1730
		1.5	4.02	1750	1900	1850	2280	6.79	1220	1400	1280	1580
		2	4.91	1500	1850	1610	1900	8.30	1020	1150	1070	1320
		3	6.67	1240	1420	1290	1600	11.27	670	750	690	960
	3	1	2.86	1900	1900	2400	2400	4.83	1520	1880	1630	1980
		1.5	3.66	1870	1900	1990	2400	6.19	1310	1520	1370	1680
		2	4.47	1630	1900	1720	2100	7.55	1120	1260	1160	1450
		3	6.07	1330	1540	1390	1700	10.26	790	930	820	1060
	4	1	2.33	1900	1900	2400	2400	3.94	1780	1900	1880	1900
		1.5	2.99	1900	1900	2390	2400	5.05	1480	1800	1580	1900
		2	3.65	1870	1900	2000	2400	6.17	1310	1520	1370	1690
		3	4.96	1490	1830	1600	1930	8.38	1010	1140	1060	1300
UP TO 10M	1	1	5.2	1450	1760	1540	1870	8.79	960	1100	1010	1230
		1.5	6.67	1240	1420	1290	1600	11.27	670	750	690	960
		2	8.13	1040	1170	1090	1350	13.74	N/A	N/A	N/A	N/A
		3	11.06	700	800	720	980	18.69	N/A	N/A	N/A	N/A
	2	1	4.15	1720	1900	1800	1900	7.01	1190	1360	1240	1550
		1.5	5.32	1440	1730	1510	1840	8.99	930	1070	980	1190
		2	6.48	1270	1460	1320	1630	10.95	710	820	730	990
		3	8.82	950	1090	1010	1220	14.91	N/A	N/A	N/A	N/A
	2.5	1	3.51	1900	1900	2060	2400	5.93	1350	1580	1410	1730
		1.5	4.5	1620	1900	1710	1900	7.61	1110	1250	1160	1440
		2	5.49	1410	1690	1480	1800	9.28	890	1040	950	1160
		3	7.46	1130	1280	1180	1470	12.61	N/A	N/A	N/A	N/A
	3	1	2.86	1900	1900	2400	2400	4.83	1520	1880	1630	1900
		1.5	3.66	1870	1900	1990	2400	6.19	1310	1520	1370	1680
		2	4.47	1630	1900	1720	1900	7.55	1120	1260	1160	1450
		3	6.07	1330	1540	1390	1700	10.26	790	930	820	1060
	4	1	2.33	1900	1900	1900	1900	3.94	1780	1900	1880	1900
		1.5	2.99	1900	1900	1900	1900	5.05	1480	1800	1580	1900
		2	3.65	1870	1900	1900	1900	6.17	1310	1520	1370	1690
		3	4.96	1490	1830	1600	1900	8.38	1010	1140	1060	1300

RECOMMENDED FASTENERS FOR STEEL SUPPORTS

ONLY FASTENERS NOTED CAN BE USED IN THIS DTCM SHEET.

SCREW NOTATION CODE:	STEEL THICKNESS	CLASS 4: SELF DRILLING & SELF TAPPING HEX HEAD SCREW WITH EPDM SEAL
HH DENOTED - HEX. HEAD T17 " - TYPE 17	SINGLE: 1.0mm UP TO 3.0mm bmt	BUILDEX #14 - 10 x 68 HH (CREST FIX) WITH EPDM SEAL+CYCLONE ASSEMBLY
	LAPPED: 1.0mm UP TO 1.9mm bmt (total 3.8mm)	BUILDEX #14 - 10 x 68 HH (CREST FIX) WITH EPDM SEAL+CYCLONE ASSEMBLY

RECOMMENDED ROOFING FASTENERS FOR TIMBER SUPPORTS

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

Notes covering basis of DTCM sheet (Relevant test reports etc)

1. SELECTED CYCLONIC TESTING OF KLIPLOK 406 HIGH WIND G300 0.55mm BMT TO BCA LHL REGIME TEST REPORT. REPORT 5.1.2 - REPORT 01. JUNE 2009. BLUESCOPE STEEL LYSAGHT, No 7 FERNGROVE PLACE, CHESTER HILL 2162 NSW - AUSTRALIA.
2. 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.
3. 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.
4. INCREASE SCREW LENGTH OVER INSULATION TO MAINTAIN A MIN. OF 3 SCREW THREADS PROTRUDING THE FAR SIDE OF THE SUPPORT.

**Checking Engineers Certification

Name: KAVITHA MYSORE

Registration number: MIE AUST. 2089547

Date: 07/11/19

Signature: M.K.Kavitha

**registered as a structural engineer in Australia

**Certifying Engineers Certification

Name: STEPHEN HEALEY

NT Registration Number: 34856ES

Date: 12/11/19

Signature:

**registered as a structural engineer in Northern Territory

Product Name: KLIPLOK 406 HIGH WIND - ROOFING FOR CYCLONIC REGIONS

Product Description: 0.55 & 0.7 BMT G300 AM125 & COLORBOND AS 1397: 2011 & AS/NZS 2728: 2013

Manufacturer's Name

LYSAGHT

BlueScope Limited
A.B.N. 16 000 011 058
Trading as Lysaght

DESIGN CRITERIA

KLIPLOK 406 HIGH WIND 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:

1. IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS
2. WIND REGION 'C', VR = 66xFc = 66x1.05 = 69.3 m/sec
3. Ms = Mt = Md = 1.0
4. Cpe = -0.9; Cpi = +0.7 Kce & Kci = 0.9
5. 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:(R2016) METHODS OF TESTING SHEET ROOF AND WALL CLADDING - RESISTANCE TO CONCENTRATED LOADS

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 (INCORPORATING AMENDMENT No. 1).

E. PRODUCT METALLIC COATING COMPLIES WITH AS 1397-2011 : CONTINUOUS HOT-DIP METALLIC COATED STEEL SHEET AND STRIP - COATINGS OF ZINC AND ZINC ALLOYED WITH ALUMINIUM AND MAGNESIUM & AS/NZS 2728: 2013 PREFINISHED/PREPAINTED SHEET METAL PRODUCTS FOR INTERIOR/EXTERIOR BUILDING APPLICATIONS - PERFORMANCE REQUIREMENTS

F. INTERPOLATION OF CAPACITY AND SPACING VALUES IS PERMITTED.

G. DESIGN TABLES ARE BASED ON THE TEST RESULTS IN ACCORDANCE WITH NCC 2019 BUILDING CODE OF AUSTRALIA - VOLUME 2 PART 3.10.1 (F) REQUIREMENTS FOR "LHL" CYCLONIC TEST FOR METAL ROOFS AND RELEVANT CLAUSES OF AS/NZS 4600: 2018 COLD-FORMED STEEL STRUCTURES.

Limitations

1. THE DATA IN THIS SHEET SHALL BE APPLICABLE TO KLIPLOK 406 HIGH WIND ROOFING ONLY. PROFILE DIMENSIONS OF KLIPLOK 406 HIGH WIND AS SUPPLIED FOR INSTALLATION SHALL COMPLY WITH KLIPLOK 406 HIGH WIND PRODUCT DRAWING AS DEVELOPED BY LYSAGHT.
2. REFER TO APPROPRIATE DTCM SHEET FOR MAXIMUM BATTER SPACING IN A CASE WHEN STEEL SUPPORTS ARE LESS THAN 1.0mm BMT.
3. THE DESIGN & SPAN TABLES ARE VALID FOR KL 406 HIGH WIND OVERHANG LENGTHS NOT EXCEEDING 100mm.
4. Pz PRESSURE IN THE TABLES SHALL BE INCREASED ACCORDING TO AS/NZS 1170.2:2011 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS, IN THE CASE OF:
   - ELEVATED BUILDINGS ALLOWING FOR AIR FLOW UNDER - h/b > 1 & h/d >1.

5. ALWAYS WALK IN PANS & OVER SUPPORTS IF POSSIBLE. GENERALLY KEEP YOUR WEIGHT DISTRIBUTED OVER THE SOLES OF BOTH FEET, TO AVOID CONCENTRATING YOUR WEIGHT ON EITHER THE HEELS OR TOE OF YOUR FEET.
6. MAXIMUM KLIPLOK 406 HIGH WIND ROOF LENGTHS AS RELATED TO WATER CARRYING CAPACITY & ROOF PITCH SHOULD BE DETERMINED USING LYSAGHT KLIPLOK-406 DESIGN &INSTALLATION GUIDE

Accepted for Inclusion

DTCM ref: M/589/01

Chairman's Signature:

Chairman's Name: Paul Nowland

Date of Approval: 22/11/2019 Expiry Date: 22/11/2024