

ROOF DESIGN CAPACITY TABLES

KLIPOK 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	6.96	7.91
1500	4.93	6.27
1800	3.88	5.07
1900	3.58	4.78

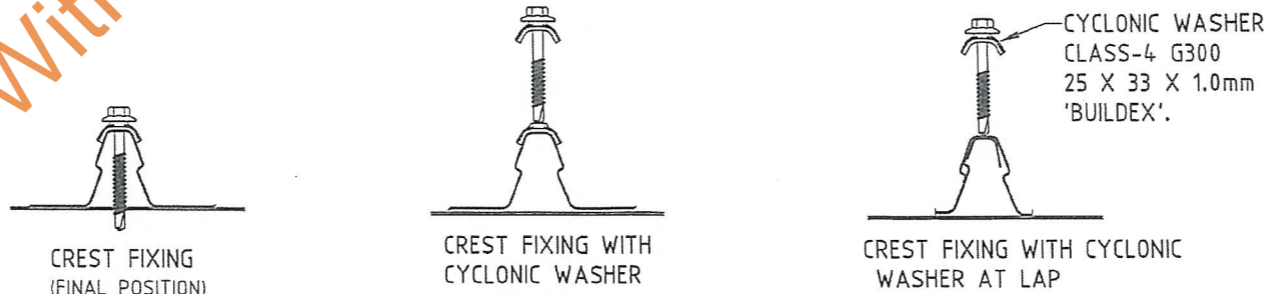
KLIPOK 406 HIGH WIND: 0.7 BMT - ULTIMATE LIMIT
STATE PRESSURE (kPa)

SPAN mm	CREST FASTENED WITH CYCLONIC WASHERS	
	END	INTERNAL
600	12.00	12.00
900	9.70	11.94
1200	7.31	9.26
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

MAXIMUM BATTEN SPACING (mm) FOR CYCLONIC REGION 'C'
TOPSPAN 40 - 0.75 bmt & TOPSPAN 50 - 0.75 bmt

LOCATION ON ROOF	Kl	pz kPa	MAXIMUM ALLOWABLE BATTEN SPACING (mm)			
			450	600	900	1200
ROOF EDGES	2.0	3.75	1210	1210	880	650
INTERNAL AREAS	1.0	2.4	1890	1890	1380	1020
ROOF EDGES	2.0	5.58	810	810	590	440
INTERNAL AREAS	1.0	3.57	1270	1270	930	690
ROOF EDGES	2.0	8.21	550	550	400	290
INTERNAL AREAS	1.0	5.26	860	860	630	460
ROOF EDGES	2.0	11.09	410	410	290	220
INTERNAL AREAS	1.0	7.1	640	640	460	340

KLIPOK 406 HIGH WIND



MAXIMUM SPAN TABLES

BUILDING HEIGHT	TERRAIN CATEGORY	Kl	pz (kPa)	CREST FASTENED WITH CYCLONIC WASHERS								
				Mt = 1.0				pz (kPa)	Mt = 1.3			
				0.55 BMT		0.70 BMT			0.55 BMT		0.70 BMT	
				END	INTERNAL	END	INTERNAL		END	INTERNAL	END	INTERNAL
UP TO 5M	1 & 2	1	4.16	1710	1900	1800	2220	7.03	1190	1360	1240	1540
		1.5	5.33	1440	1730	1510	1840	9.01	930	1070	980	1190
		2	6.5	1260	1450	1320	1630	10.99	710	810	730	990
	2.5	1	3.53	1900	1900	2050	2400	5.97	1340	1570	1400	1720
		1.5	4.52	1610	1900	1710	2080	7.64	1110	1240	1150	1440
		2	5.52	1410	1680	1470	1800	9.33	890	1040	940	1160
3 & 4	1	2.95	1900	1900	2400	2400	4.99	1490	1820	1590	1920	
	1.5	3.78	1830	1900	1940	2380	6.39	1280	1470	1340	1650	
	2	4.61	1590	1900	1690	2050	7.79	1090	1220	1140	1410	
UP TO 10M	1 & 2	1	4.61	1590	1900	1690	2050	7.79	1090	1220	1140	1410
		1.5	5.91	1350	1590	1410	1730	9.99	820	960	860	1090
		2	7.2	1170	1320	1210	1510	12.17	N/A	N/A	N/A	N/A
	2.5	1	4.12	1730	1900	1810	2240	6.96	1200	1370	1250	1550
		1.5	5.28	1440	1740	1520	1850	8.92	940	1080	990	1200
		2	6.43	1270	1470	1330	1640	10.87	720	840	740	1000
	3 & 4	1	3.65	1870	1900	2000	2400	6.17	1310	1520	1370	1690
		1.5	4.68	1570	1900	1670	2030	7.91	1070	1200	1120	1390
		2	5.71	1380	1640	1440	1760	9.65	850	1000	900	1130

RECOMMENDED ROOFING FASTENERS

STEEL SUPPORTS

STEEL THICKNESS	CLASS 4 : SELF DRILLING & SELF TAPPING HEX HEAD SCREW WITH EDPM SEAL
1.5 - 3.0mm bmt	#14 - 10 x 65 (CREST FIX)
0.75mm bmt	#15 - 15 x 55 (CREST FIX)

TIMBER SUPPORTS

STRENGTH GROUP	CLASS 4 : TYPE 17 SELF DRILLING HEX HEAD SCREW WITH EDPM SEAL
HARDWOOD J1-J3	#14 - 10 x 75 (CREST FIX)
SOFTWOOD J4	#14 - 10 x 90 (CREST FIX)

NOTES:

- INCREASE SCREW LENGTH IF FIXING OVER INSULATION TO MAINTAIN A MIN. 3 SCREW THREADS PROTRUDING FAR SIDE OF SUPPORT.
- FOR STRENGTH GROUPS OF TIMBER REFER TO AS 1720.2 :2006
- DESIGN TABLES ARE BASED ON TEST RESULTS IN ACCORDANCE TO BCA REQUIREMENTS FOR "LHL" CYCLONIC TEST FOR METAL ROOFS.
- FIXING TOPSPAN BATTENS : TO STEEL (PER SUPPORT) -0.75 BMT: 4-OFF #15-15X25 SELF DRILLING, SELF TAPPING HEX HEAD SCREW.
-1.0 BMT: 2-OFF #15-15X25 SELF DRILLING, SELF TAPPING HEX HEAD SCREW.
-1.2/1.5 BMT: 2-OFF #14-10X25 SELF DRILLING, SELF TAPPING HEX HEAD SCREW.
TO TIMBER (PER SUPPORT) -HARDWOOD : 2-OFF TYPE 17 #12-11X25 HEX HEAD SELF DRILLING.
-SOFTWOOD : 2-OFF TYPE 17 #12-11X40 HEX HEAD SELF DRILLING.

****Design Engineers Certification**

Name: CAM SECCOMBE
Rego Number: CPEng. 311079
Date: 18-06-2009
Signature: *Cam Seccombe*
**registered as a structural engineer in Australia

****Certifying Engineers Certification**

Name: ALEXANDER FILONOV
NT Rego Number: 24332ES
Date: 18-06-2009
Signature: *Alexander Filonov*
**registered as a structural engineer in Northern Territory

Product Name
KLIPOK 406 HIGH WIND -
ROOFING FOR CYCLONIC REGIONS

Product Description
0.55 & 0.7 BMT G300 AZ150 & COLORBOND
AS 1397: 2001 & AS/NZS 2728: 2007

Manufacturer's Name
BLUESCOPE LYSAGHT
BlueScope Steel Limited
A.B.N. 16 000 011 058
Trading as BlueScope Lysaght



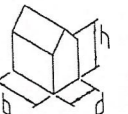
Design Criteria

- THE FOLLOWING CRITERIA FROM AS/NZS 1170.2:2002 HAVE BEEN USED TO GENERATE THE TABLES.
- IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS
 - VR = 66 m/sec, Fc = 1.05
 - Ms = Md = 1.0
 - Ms = Mt = 1.0 & 1.3
 - Cpe = -0.9; Cpi = +0.7
 - HEIGHT MULTIPLIERS FROM TABLE

HEIGHT (m)	TERRAIN / HEIGHT MULTIPLIER (Mz,cat)		
	1 & 2	2.5	3 & 4
<=5	0.95	0.88	0.80
<=10	1.00	0.95	0.89

Limitations

- THE DATA IN THIS SHEET SHALL BE APPLICABLE TO KLIPOK 406 HIGH WIND ROOFING PROFILE ONLY. PROFILE DIMENSIONS OF KLIPOK 406 HIGH WIND AS SUPPLIED FOR INSTALLATION SHALL COMPLY WITH KLIPOK 406 HIGH WIND PRODUCT DRAWINGS AS DEVELOPED BY BLUESCOPE LYSAGHT.
- ROOF DESIGN CAPACITY TABLES & MAXIMUM SPAN TABLES HAVE BEEN DEVELOPED FOR TIMBER SUPPORTS & STEEL SUPPORTS 1.5mm BMT OR THICKER. MAXIMUM SPACES & PRESSURE SHALL NOT EXCEED THE VALUES GIVEN IN MAXIMUM BATTEN SPACING TABLE, WHERE TOPSPAN 40 OR TOPSPAN 50 WITH 0.75 BMT SUPPORTS ARE USED.
- MAXIMUM SPAN TABLES ARE BASED ON THE FOLLOWING PARAMETERS: MAXIMUM ROOF HEIGHT= 10M
- MAXIMUM OVERHANG SHALL BE 300mm.
- TOPSPAN 40 & 50 BATTENS SHALL BE CONTINUOUS OVER AT LEAST TWO SPANS, LAPPED A MINIMUM OF 40mm AT THE SUPPORT (TRUSS OR RAFTER) LOCATIONS.
- Pz PRESSURE IN THE TABLES SHALL BE INCREASED ACCORDING TO AS/NZS 1170.2:2002 IN THE CASE OF:
- ELEVATED BUILDING ALLOWING FOR AIR FLOW UNDER
- h/b > 1.
- h/d > 1.



Accepted for Inclusion

DCM REF: M/146/01 A

Chairman's Signature: *P. Russell*

Chairman's Name: PETER RUSSELL

Date of Approval: 6/8/09 Expiry Date: 6/8/12

New Expiry Date: 6/8/14
Signature: *[Signature]*

New Expiry Date: 6/8/14
Signature: *[Signature]*