



**Product Name**  
CUSTOM BLUE ORB: WALLING - FOR CYCLONIC REGIONS

**Product Description**  
0.60 BMT G300 Z600 & 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.  
1. IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS  
2.  $V_r = 66$  m/sec,  $F_c = 1.05$   
3.  $M_s = M_t = M_d = 1.0$   
4.  $C_{pe} = -0.65$ ;  $C_{pi} = +0.7$   
5. HEIGHT MULTIPLIERS FROM TABLE 4.1(B) - AS/NZS 1170.2: 2002

HEIGHT (m)	TERRAIN / HEIGHT MULTIPLIER ( $M_z, cat$ )		
	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 CUSTOM BLUE ORB WALLING ONLY. PROFILE DIMENSIONS OF CUSTOM BLUE ORB AS SUPPLIED FOR INSTALLATION SHALL COMPLY WITH CUSTOM BLUE ORB PRODUCT DRAWINGS AS DEVELOPED BY BLUESCOPE LYSAGHT.
  - WALL DESIGN CAPACITY TABLES & MAXIMUM SPAN TABLES HAVE BEEN DEVELOPED FOR TIMBER SUPPORTS & STEEL SUPPORTS 1.5mm BMT OR THICKER. REFER TO APPROPRIATE DTCM SHEET FOR MAXIMUM BATTEN SPACING IN A CASE WHEN STEEL SUPPORTS ARE LESS THAN 1.5 BMT.
  - INSTALLATION SHALL BE IN ACCORDANCE WITH LYSAGHT CYCLONIC AREA DESIGN MANUAL.
  - MAXIMUM SPAN TABLES ARE BASED ON THE FOLLOWING PARAMETERS: MAXIMUM ROOF HEIGHT= 10M
  - MAXIMUM OVERHANG SHALL BE DETAILED ACCORDING TO CURRENT LYSAGHT ROOFING AND WALLING INSTALLATION MANUAL.
  - $P_z$  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  
-  $h/b > 1$  &  $h/d > 1$ .
  - INCREASE SCREW LENGTH OVER INSULATION TO MAINTAIN A MIN. OF 3 SCREW THREADS PROTRUDING FAR SIDE OF THE 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 WALLS.
  - NO PREBORED HOLES PERMITTED.

**WALL DESIGN CAPACITY TABLES**

**CUSTOM BLUE ORB: 0.60 BMT** - ULTIMATE LIMIT  
STATE PRESSURE (kPa)

SPAN mm	VALLEY FASTENED WITHOUT CYCLONIC WASHERS			CREST FASTENED WITH CYCLONIC WASHERS		
	SINGLE	END	INTERNAL	SINGLE	END	INTERNAL
600	10.80	10.80	10.80	10.90	10.80	10.80
900	6.30	8.04	8.62	7.45	8.52	9.82
1200	3.38	5.88	6.44	5.28	6.68	8.62
1500	2.81	4.32	5.04	4.88	5.27	7.20
1800	2.25	3.36	3.28	4.47	4.28	5.56
2100	---	3.00	1.90	---	3.73	3.70

SCREW NOTATION CODE: HH DENOTED - HEX. HEAD  
T17 " - TYPE 17  
HG " - HIGH GRIP  
TG " - TOP GRIP

**RECOMMENDED FASTENERS** ONLY FASTENERS NOTED CAN BE USED WITH THIS DTCM SHEET.

**STEEL SUPPORTS** - CLASS 4 : SELF DRILLING & SELF TAPPING HEX HEAD SCREW WITH EPDM SEAL

LOCATION ON CLADDING	SINGLE & LAPPED THICKNESS:			SINGLE THICKNESS:			LAPPED THICKNESS: 1.0mm UP TO 1.9mm bmt. (total 3.8mm)			LOCATION ON CLADDING	TIMBER SUPPORTS - CLASS 4 : SELF DRILLING HEX HEAD SCREW WITH EPDM SEAL	
	0.75mm UP TO 1.0mm bmt. (total 2.0mm)	1.0mm UP TO 3.0mm bmt.	1.0mm UP TO 3.0mm bmt.	1.0mm UP TO 3.0mm bmt.	1.0mm UP TO 3.0mm bmt.	1.0mm UP TO 3.0mm bmt.	1.0mm UP TO 3.0mm bmt.	1.0mm UP TO 3.0mm bmt.	HARDWOOD (STRENGTH GROUP J1-J3)		SOFTWOOD (STRENGTH GROUP J4)	
CREST	#15 - 15 x 47 HH M6.5 - 12 x 55 CYCLONIC ZIP	#14 - 10 x 42 HH	#14 - 10 x 42 HH	14 - 10 x 42 HH	14 - 10 x 42 HH	14 - 10 x 42 HH	14 - 10 x 42 HH	14 - 10 x 42 HH	CREST	#12 - 11 x 50 T17 HH HG/TG	#14 - 10 x 50 T17 HH M6 -11 x 50 ROOFZIPS	
PAN	#15 - 15 x 25 HH	#14 - 10 x 25 HH	#14 - 10 x 25 HH	#14 - 10 x 25 HH	#14 - 10 x 25 HH	#14 - 10 x 25 HH	#14 - 10 x 25 HH	#14 - 10 x 25 HH	PAN	#12 - 11 x 25 T17 HH	#14 - 10 x 39 T17 HH	

**MAXIMUM SPAN TABLES**

BUILDING HEIGHT	TERRAIN CATEGORY	K1	p <sub>z</sub> (kPa)	VALLEY FASTENED WITHOUT CYCLONIC WASHERS			CREST FASTENED WITH CYCLONIC WASHERS		
				0.60 BMT					
				SINGLE	END	INTERNAL	SINGLE	END	INTERNAL
UP TO 5M	1 & 2	1	3.51	1180	1750	1750	1860	2100	2100
		1.5	4.36	1090	1490	1590	1800	1770	1990
		2	5.20	1010	1330	1440	1260	1510	1850
	2.5	1	3.01	1390	2080	1850	1890	2100	2100
		1.5	3.74	1160	1680	1710	1840	2090	2090
		2	4.46	1080	1470	1570	1800	1740	1970
3 & 4	1	2.49	1670	2100	1970	1930	2100	2100	
	1.5	3.09	1350	2020	1840	1890	2100	2100	
	2	3.69	1160	1690	1720	1850	2100	2100	
UP TO 10M	1 & 2	1	3.89	1140	1630	1680	1830	2010	2060
		1.5	4.83	1050	1400	1500	1530	1630	1910
		2	5.76	950	1220	1340	1130	1390	1760
	2.5	1	3.51	1180	1750	1750	1860	2100	2100
		1.5	4.36	1090	1490	1590	1800	1770	1990
		2	5.20	1010	1330	1440	1260	1510	1850
	3 & 4	1	3.08	1350	2030	1840	1890	2100	2100
		1.5	3.82	1150	1650	1690	1840	2040	2080
		2	4.56	1070	1450	1550	1730	1710	1960

Notes covering basis of DTCM sheet (Relevant test reports etc)  
1. CUSTOM BLUE ORB 0.6 BMT CYCLONIC ROOF & WALL PRESSURE TESTS. PROJECT #501855. JUNE 2008. BLUESCOPE STEEL LYSAGHT No 7 FERGROVE PLACE, CHESTER HILL 2162 NSW - AUSTRALIA.  
2. STATIC & CYCLIC FATIGUE WITHDRAWAL CAPACITIES OF SELF DRILLING SCREWS IN TIMBER SUPPORTS. REPORT: 5.1.2-REPORT05. DECEMBER 2010. BLUESCOPE LYSAGHT No 27 STERLING RD, MINCHINBURY 2770 NSW - AUSTRALIA.  
3. CYCLIC PULLOUT CAPACITIES OF BUILDDEX M6.5-12X55 CYCLONIC ZIP SCREWS. REPORT: 5.1.3 - REPORT 05. JUNE 2010. BLUESCOPE LYSAGHT No 27 STERLING RD, MINCHINBURY 2770 NSW - AUSTRALIA.  
4. 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.

**\*\*Design Engineers Certification**  
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\*\*registered as a structural engineer in Australia

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Signature: *Alexander Filonov*  
\*\*registered as a structural engineer in Northern Territory

Accepted for Inclusion

DTCM ref: m-248-01

Chairman's Signature: *P. Russell*

Chairman's Name: P. RUSSELL

Date of Approval: 5/5/11 Expiry Date: 5/5/14