



Product Name
 CUSTOM ORB: WALLING - FOR CYCLONIC REGIONS

Product Description
 0.42 & 0.48 BMT G550 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.

1. IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS
2. Vr = 66 m/sec, Fc = 1.05
3. Ms = Mt = Md = 1.0
4. Cpe = -0.65; Cpi = +0.7
5. HEIGHT MULTIPLIERS FROM TABLE 4.1(B) - AS/NZS 1170.2: 2002

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

CUSTOM ORB: 0.42 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	10.8	8.10	5.09	8.64	8.10	10.13
900	7.00	5.18	2.47	6.19	5.18	7.34
1200	4.05	3.01	1.452	4.05	3.01	5.05
1500	1.96	1.58	3.12	2.23	1.58	3.27
1800	0.72	0.90	1.99	0.72	0.90	1.99

BUILDING HEIGHT	TERRAIN CATEGORY	K1	pz (kPa)	VALLEY FASTENED WITHOUT CYCLONIC WASHERS						CREST FASTENED WITH CYCLONIC WASHERS					
				0.42 BMT						0.48 BMT					
				SINGLE	END	INTERNAL	SINGLE	END	INTERNAL	SINGLE	END	INTERNAL	SINGLE	END	INTERNAL
UP TO 5M	1 & 2	1	3.51	1270	1130	1410	1280	1130	1450	1270	1210	1500	1270	1540	1750
		1.5	4.36	1160	1010	1230	1150	1010	1310	1160	1080	1340	1160	1350	1590
	2.5	2	5.20	1080	890	1070	1030	890	1180	1080	950	1190	1080	1160	1440
		1	3.01	1340	1200	1520	1370	1200	1560	1350	1310	1630	1350	1660	1850
	3 & 4	1.5	3.74	1240	1090	1360	1250	1090	1420	1240	1170	1450	1240	1480	1700
		2	4.46	1150	990	1210	1140	990	1290	1150	1060	1320	1150	1320	1570
UP TO 10M	1 & 2	1	2.49	1420	1300	1660	1450	1300	1680	1430	1420	1770	1430	1790	1950
		1.5	3.09	1330	1180	1500	1350	1180	1540	1340	1300	1610	1340	1640	1830
	2.5	2	3.69	1250	1100	1370	1250	1100	1420	1250	1180	1460	1250	1490	1710
		1	3.89	1220	1070	1330	1220	1070	1390	1220	1150	1430	1220	1450	1680
	3 & 4	1.5	4.83	1120	940	1140	1090	940	1230	1120	1010	1260	1120	1240	1500
		2	5.76	1020	840	970	960	840	1100	1020	870	1120	1020	1050	1350
	1 & 2	1	3.51	1270	1130	1410	1280	1130	1450	1270	1210	1500	1270	1540	1750
		1.5	4.36	1160	1010	1230	1150	1010	1310	1160	1080	1340	1160	1350	1590
	2.5	2	5.20	1080	890	1070	1030	890	1180	1080	950	1190	1080	1160	1440
		1	3.08	1330	1190	1510	1350	1190	1540	1340	1300	1610	1340	1640	1830
	3 & 4	1.5	3.82	1230	1080	1350	1230	1080	1400	1230	1160	1440	1230	1470	1690
		2	4.56	1140	980	1190	1120	980	1280	1140	1050	1310	1140	1300	1550

CUSTOM ORB: 0.48 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	8.10	10.13	10.80	8.16	10.80
900	6.98	5.50	7.38	6.98	6.54	8.65
1200	4.05	3.57	5.18	4.05	5.05	6.68
1500	2.02	2.12	3.51	2.02	3.69	4.88
1800	0.88	1.22	2.39	0.88	2.46	3.25
2100	-----	0.86	1.80	-----	1.36	1.80

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			TIMBER SUPPORTS - CLASS 4 : SELF DRILLING HEX HEAD SCREW WITH EPDM SEAL		
LOCATION ON CLADDING	SINGLE & LAPPED THICKNESS: 0.75mm UP TO 1.0mm bmt. (total 2.0mm)	SINGLE THICKNESS: 1.0mm UP TO 3.0mm bmt.	LAPPED THICKNESS: 1.0mm UP TO 1.9mm bmt. (3.8mm TOTAL)	LOCATION ON CLADDING	HARDWOOD (STRENGTH GROUP J1-J3) / SOFTWOOD (STRENGTH GROUP J4)
CREST	#15 - 15 x 47 HH #6.5 - 12 x 55 CYCLONIC ZIP	#14 - 10 x 42 HH	#14 - 10 x 42 HH	CREST	#12 - 11 x 50 T17 HH HG/TG / M6 -11' x 50 ROOFZIPS #14 - 10 x 50 T17 HH
PAN	#15 - 15 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

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

1. CUSTOM ORB 0.42 + 0.48 BMT CYCLONIC ROOF & WALL PRESSURE TESTS. PROJECT #501855. JUNE 2008. 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. 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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 Signature: M. K. Kavitha Mysore
**registered as a structural engineer in Australia

****Certifying Engineers Certification**
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 NT Registration Number: 24332ES
 Date: 9.03.2011
 Signature: Alexander Filonov
**registered as a structural engineer in Northern Territory

Limitations

1. THE DATA IN THIS SHEET SHALL BE APPLICABLE TO CUSTOM ORB WALLING ONLY. PROFILE DIMENSIONS OF CUSTOM ORB AS SUPPLIED FOR INSTALLATION SHALL COMPLY WITH CUSTOM ORB PRODUCT DRAWINGS AS DEVELOPED BY BLUESCOPE LYSAGHT.
2. 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.
3. INSTALLATION SHALL BE IN ACCORDANCE WITH LYSAGHT CYCLONIC AREA DESIGN MANUAL.
4. MAXIMUM SPAN TABLES ARE BASED ON THE FOLLOWING PARAMETERS: MAXIMUM ROOF HEIGHT= 10M
5. MAXIMUM OVERHANG SHALL BE DETAILED ACCORDING TO CURRENT LYSAGHT ROOFING AND WALLING INSTALLATION MANUAL.
6. 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
7. INCREASE SCREW LENGTH OVER INSULATION TO MAINTAIN A MIN. OF 3 SCREW THREADS PROTRUDING FAR SIDE OF THE SUPPORT.
8. FOR STRENGTH GROUPS OF TIMBER, REFER TO AS 1720.2 : 2006
9. DESIGN TABLES ARE BASED ON TEST RESULTS IN ACCORDANCE TO BCA REQUIREMENTS FOR 'LHL' CYCLONIC TEST FOR METAL WALLS.
10. NO PREBORED HOLES PERMITTED.

Accepted for Inclusion

DTCM ref: M-246-01

Chairman's Signature: *P. Russell*

Chairman's Name: P. RUSSELL

Date of Approval: 5/6/11 Expiry Date: 5/5/14

New Expiry: 5/11/14
 Signature: *[Signature]*

New Expiry: 5-6-16
 Signature: *[Signature]*