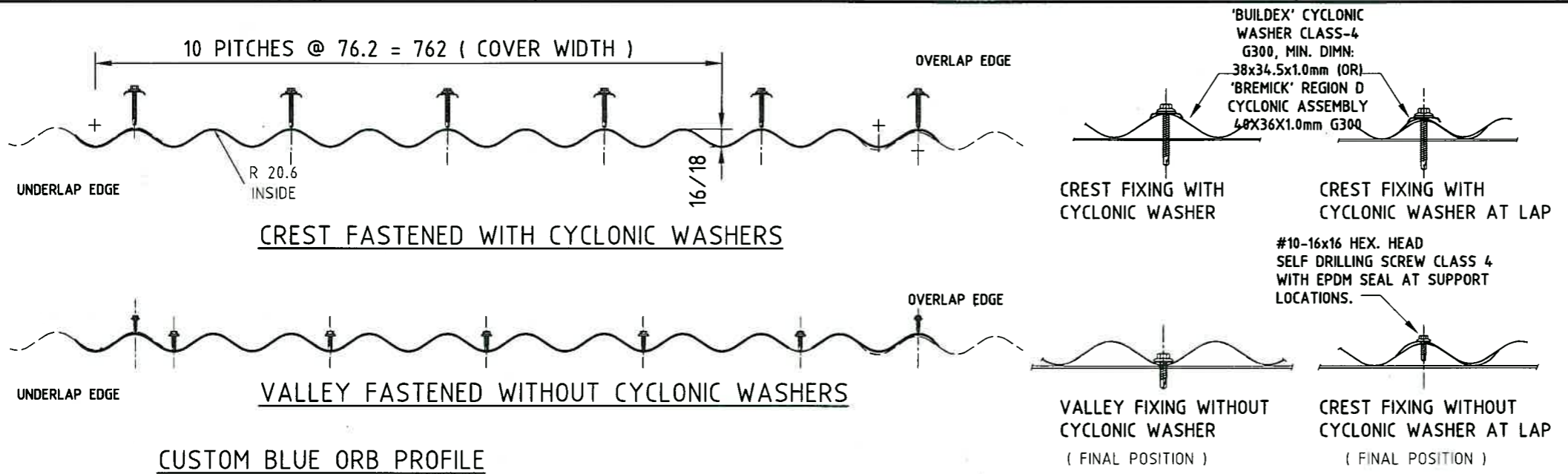


NORTHERN TERRITORY DEEMED TO COMPLY MANUAL - National Construction Code Volume 2 (Section 3.0.4 Structural resistance of materials in high wind areas)
 This product has been determined to satisfy NCC Performance Requirement P2.1.1 for structural stability and resistance.



Product Name
 CUSTOM BLUE ORB - WALLING FOR CYCLONIC REGIONS SHEET 1 OF 2

Product Description
 CUSTOM BLUE ORB WALLING IS MANUFACTURED FROM 0.6mm BMT G300, AM125 ZINCALUME, AM100 COLORBOND, AM150 COLORBOND ULTRA. Z600 ZINCFORM MATERIALS IS AVAILABLE AT SOME LOCATIONS.

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

Design Criteria

- THE FOLLOWING CRITERIA FROM AS/NZS 1170.2:2021 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS HAVE BEEN USED TO GENERATE THE TABLES.
 - IMPORTANCE LEVEL 2 WITH RETURN PERIOD OF 500 YEARS
 - VR = 66 m/sec
 - Ms = Mt = Md = 1.0, Mc = 1.05
 - Cpe = +0.7 / -0.65; Cpi = -0.65 / +0.7 Kce & Kci = 0.9
 - 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

- CUSTOM BLUE ORB COMPLIES WITH AUSTRALIAN STANDARDS FOR THE FOLLOWING REQUIREMENTS:
 - SERVICEABILITY: AS/NZS 1170.0: 2002 STRUCTURAL DESIGN ACTIONS PART 0 GENERAL PRINCIPLES (INCORPORATING AMENDMENT 1,2,3,4&5)
 - WIND LOADING: AS/NZS 1170.2: 2021 STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTION
- DESIGN TABLES ARE BASED ON TEST RESULTS COMPATIBLE TO AS 4040.3 - 2018 METHODS OF TESTING SHEET ROOF AND WALL CLADDING METHOD 3: RESISTANCE TO WIND PRESSURES FOR CYCLONE REGIONS.
- PRODUCT METALLIC COATING COMPLIES WITH AS 1397-2021: 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
- FOR STRENGTH GROUPS OF TIMBER, REFER TO AS 1720.2: 2006 TIMBER STRUCTURES PART 2: TIMBER PROPERTIES (INCORPORATING AMENDMENT No. 1).

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 LYSAGHT.
- INSTALLATION SHALL BE IN ACCORDANCE WITH LYSAGHT CYCLONIC AREA DESIGN MANUAL AND CUSTOM BLUE ORB MANUAL.
<https://cdn.dcs.lysaght.com/download/lysaght-cyclonic-design-manual-steel-roofing-walling-topspan>
- MAXIMUM SPAN TABLES ARE BASED ON MAXIMUM ROOF HEIGHT = 10M.
- MAXIMUM OVERHANG SHALL BE DETAILED ACCORDING TO CURRENT LYSAGHT ROOFING & WALLING INSTALLATION MANUAL.
- Pz (PRESSURE) IN THE TABLES SHALL BE INCREASED ACCORDING TO AS/NZS 1170.2:2021, STRUCTURAL DESIGN ACTIONS PART 2: WIND ACTIONS CLAUSE 5.4.1 IN THE CASE OF ELEVATED BUILDING AND ROOF PITCH >=25 DEG
- NO PRE-BORED HOLES PERMITTED.
- INCREASE SCREW LENGTH IF FIXING OVER INSULATION TO MAINTAIN A MIN. OF 3 SCREW THREADS PROTRUDING ON THE FAR SIDE STEEL SUPPORT.

Accepted for Inclusion in Deemed to Comply Manual

DTCM Drawing number: M/352/01

Chairperson Signature:

Chairperson Name: Paul Nowland

Date of Approval: 11/07/2022 Expiry 11/07/2027

MAXIMUM SPAN TABLES FOR TIMBER & STEEL SUPPORTS >=1.5 (mm)

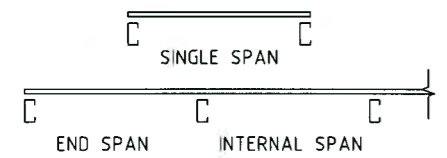
NOTE: CLADDING SPAN SHALL NOT EXCEED THE MAXIMUM SPAN FOR CLADDING (SHEET 1) OR THE MAXIMUM BATTEN SPACING (SHEET 2)

BUILDING HEIGHT	TERRAIN CATEGORY	K1	pz (kPa)	VALLEY FASTENED WITHOUT CYCLONIC WASHERS, 0.60BMT			CREST FASTENED WITH CYCLONIC WASHERS, 0.60BMT		
				SINGLE	END	INTERNAL	SINGLE	END	INTERNAL
				UP TO 5M	1	1.5	2	3	1
UP TO 10M	1	1	4.08	1120	1570	1640	1820	1900	2030
		1.5	5.07	1020	1350	1460	1350	1550	1870
		2	6.05	920	1170	1290	1090	1330	1710
	2	1	3.50	1180	1750	1750	1860	2100	2100
		1.5	4.34	1100	1490	1590	1800	1780	1990
		2	5.19	1010	1330	1440	1260	1520	1850
	2.5	1	2.96	1420	2100	1860	1900	2100	2100
		1.5	3.68	1160	1690	1720	1850	2100	2100
		2	4.39	1090	1480	1580	1800	1760	1980
	3	1	2.41	1710	2100	1980	1930	2100	2100
		1.5	2.99	1400	2100	1860	1890	2100	2100
		2	3.57	1180	1730	1740	1860	2100	2100
4	1	1.97	1830	2100	2080	1960	2100	2100	
	1.5	2.44	1690	2100	1980	1930	2100	2100	
	2	2.92	1440	2100	1870	1900	2100	2100	

WALL DESIGN CAPACITY TABLES
 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	10.80	10.80	10.80
900	6.30	8.04	8.62	7.45	8.52	9.82
1200	3.38	5.88	6.64	5.28	6.68	8.62
1500	2.81	4.32	4.86	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

SPAN TYPE



RECOMMENDED FASTENERS

FASTENER NOTATIONS: HH - HEX. HEAD, HG - HIGH GRIP, T17 - TYPE 17, TG - TOP GRIP.

STEEL SUPPORTS - CLASS 4: SELF DRILLING & SELF TAPPING HEX HEAD SCREW WITH EPDM SEAL				TIMBER SUPPORTS - CLASS 4: TYPE 17 SELF DRILLING HEX HEAD SCREW WITH EPDM SEAL		
LOCATION ON CLADDING	SINGLE & LAPPED THICKNESS 0.75mm UP TO 1.0mm bmt.	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	M6.5 (#14)-12x55 CYCLONIC ZIPS	#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	M6.5 (#14)-12x30 CYCLONIC ZIPS	#14 - 10 x 25 HH	#14 - 10 x 25 HH	PAN	#12 - 11 x 25 T17 HH	#14 - 10 x 50 T17 HH

Notes covering basis of DTC (relevant test reports etc).
 1. CUSTOM BLUE ORB 0.6 BMT CYCLONIC ROOF & WALL PRESSURE TEST. PROJECT #501855, JUNE 2008. BLUESCOPE STEEL LYSAGHT. No 7 FERNGROVE PLACE, CHESTER HILL 2162 NSW - AUSTRALIA.
 2. STATIC & CYCLIC FATIGUE WITHDRAWAL CAPACITIES OF THE SELF DRILLING SCREWS IN TIMBER SUPPORTS: REPORT 5.5.2 - REPORT No 05. DECEMBER 2001. BLUESCOPE LYSAGHT No 27 STERLING RD. MINCHINBURY 2770 NSW AUSTRALIA.
 3. CYCLIC PULL OUT CAPACITIES OF BUILDEX #14 - 12 X 55 CYCLONIC ROOFZIPS SCREWS. REPORT, 5.1.2 - REPORT 05 JUNE 2010. BLUESCOPE LYSAGHT No 27 STERLING RD. MINCHINBURY 2770 NSW AUSTRALIA.
 4. SCREW PULL OUT CAPACITIES TO BUILDING CODE OF AUSTRALIA LOW-HI-LOW CYCLONIC TEST REGIME: REPORT:5.1.2 - REPORT 02. SEPTEMBER 2009. BLUESCOPE LYSAGHT No 27 STERLING RD. MINCHINBURY 2770 NSW AUSTRALIA.

Checking Engineer
 Name: SANDEEP SHARMA
 Rego Number: MIE Aust. 3101165
 Date: 28/03/2022
 Signature:
 Must be an Australian registered structural engineer

Certifying Engineer
 Name: Stephen Healey
 NT Rego Number: 34856ES
 Date: 07.06.2022
 Signature:
 Must be a registered structural engineer in the Northern Territory

