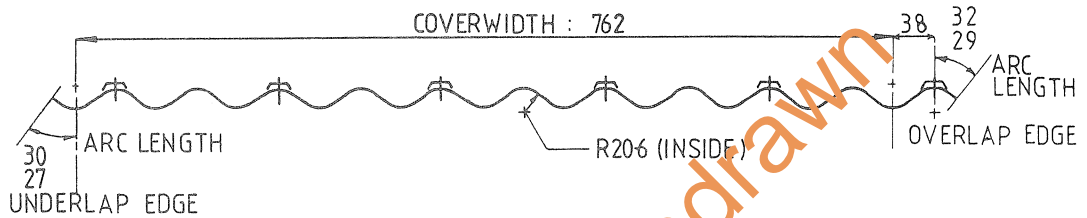


# CUSTOM ORB FOR ROOFING & WALLING WITH CYCLONE WASHERS



MATERIAL SPECIFICATION: 0.47 mm TCT ZINCALUME STEEL TO AS 1397 - G550 - AZ150

TABLE 1 IS BASED ON CYCLIC TEST CRITERIA AS SPECIFIED IN N.B.T.C. TR 440. THE ALLOWABLE SPANS GIVEN IN TABLES 2 AND 3 HAVE BEEN OBTAINED BY LINEAR INTERPOLATION OF  $P_z$  IN TABLE 1, SUBJECT TO MAXIMUM SPAN LIMITATION GOVERNED BY CONCENTRATED LOAD CRITERIA. OVERHANGS TO BE 200 mm MAXIMUM FOR ROOFS AND 300 mm MAXIMUM FOR WALLS.

WIND LOADS ARE DETERMINED IN ACCORDANCE WITH AS 1170 PART 2 1983 "WIND FORCES LOADING CODE" FOR A REGIONAL BASIC WIND VELOCITY 55 M/S, CYCLONIC AREA MULTIPLIER OF 1.15 AND ASSUMING AN INTERNAL PRESSURE COEFFICIENT OF + 0.8 AND EXTERNAL PRESSURE COEFFICIENT OF - 0.9 (FOR ROOFS), OR - 0.6 (FOR WALLS). FOR TABLES 2 & 3 THE THREE SPANS FOR EACH TERRAIN CATEGORY ALLOW FOR LOCAL PRESSURE FACTOR  $K_1$  AS PER PARAGRAPH B1.5 OF AS 1170 PART 2 - 1983. RACKING STRENGTH PROVIDED BY THE CLADDING HAS NOT BEEN TESTED AND SHOULD NOT BE ALLOWED FOR IN THE DESIGN OF THE STRUCTURE.

### RECOMMENDED FASTENERS

Timber Supports	
Strength Group *	Self-drilling wood screw with EDPM seal
Hardwood J1 - J3	Type 17 Hex Hd. No. 14-10x50 (Lysaght No. THS 1450)
Softwood J4	Type 17 Hex Hd. No. 14-10x65 (Lysaght No. THS 1465)

Steel Supports	
Steel Thickness	Self-drilling & tapping screw with EDPM seal
Up to 2.5 mm.	No. 14-10x42 Hex Hd. (Lysaght No. SHS 1442)
2.5 - 5.0 mm.	No. 14-20x45 Hex Hd. (Lysaght No. SHS 1445)

When fixing over insulation blankets increase screw length to maintain fastener penetration in support.

TABLE 1: DESIGN WIND PRESSURE,  $P_z$ , kPa

SPAN mm	0.47 mm		
	SINGLE SPAN	END SPAN	INT. SPAN
600	12.0	6.0	7.5
900	5.3	4.0	5.0
1200	3.0	2.1	3.7
1500	1.0	1.1	2.4
1800	0.6	0.6	1.4
2100	-	-	0.9
2400	-	-	0.6

TABLE 2: ROOF SHEETING MAXIMUM ALLOWABLE SPANS

TERRAIN CAT. MULTIPLIER	LOCAL PRESS. FACTOR K1	$P_z$ kPa	0.47 mm	
			SPAN mm	INT. SPAN mm
CAT 1	1.0	4.85	770	930
	1.09	1.5 6.13	580	760
	2.0	7.41	390	610
CAT 2	1.0	4.08	880	1110
	1.00	1.5 5.16	720	880
	2.0	6.24	560	750
CAT 2.5	1.0	2.95	900	1200
	.85	1.5 3.73	900	1190
	2.0	4.51	820	1010
CAT 3	1.0	2.00	900	1200
	.70	1.5 2.53	900	1200
	2.0	3.06	900	1200

TABLE 3: WALL SHEETING MAXIMUM ALLOWABLE SPANS

TERRAIN CAT. MULTIPLIER	$P_z$ kPa	0.47 mm		
		SINGLE SPAN mm	END SPAN mm	INT. SPAN mm
CAT 1	3.99	1070	900	1130
	1.09	4.85 960	770	930
	5.70	880	640	810
CAT 2	3.36	1150	1000	1280
	1.00	4.08 1060	880	1110
	4.80	960	780	940
CAT 2.5	2.43	1200	1150	1490
	.85	2.95 1200	1060	1370
	3.47	1140	980	1250
CAT 3	1.65	1200	1330	1720
	.70	2.00 1200	1230	1620
	2.35	1200	1160	1510

\* For strength groups refer AS 1720 - 1975

Manufacturers Name: LYSAGHT BUILDING INDUSTRIES		FIXING OF 0.47 mm CUSTOM ORB WITH CYCLONE WASHERS IN THE DARWIN AREA BUILDING HEIGHT UP TO 10 m	
Address: Cnr. Coonawarra and Bombing Roads, Winnellie. N.T. Phone: (089) 84 3311		DESIGN DATA SHEET	
CERTIFIED: <i>[Signature]</i> DATE: 19/2/88	M.I.E. Aust	NORTHERN TERRITORY CYCLONIC AREAS APPROVED <i>[Signature]</i> DATE: 29/4/88	DRAWING NO. M/101/2
LYSAGHT DRAWING NO: 78386			

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Engineering and Development  
Lysaght Building Industries  
A DIVISION OF JOHN LYSAGHT (AUSTRALIA) LIMITED (INCORPORATED IN NSW)  
CYCLONIC FIXING DATA  
CUSTOM ORB (0.47 mm TCT) WITH CYCLONE WASHERS. UP TO 10 m.

78386  
Lysaght Building Industries

WP NO: C04710W

REFERENCES

REVISIONS