







## **Non-Cyclonic**

Panel Properties																			
Panel Thickness (mm)		50			75			100			125			150			200		
'R' Value (m²K/W)		1.60			2.30			2.90			3.60			4.20			5.5		
	ULS Design Wind Pressure (kPa)	Max Span (m)																	
Wind Class		Single Span	Multi- Span	Max. Cantilever (mm)															
N2-W33	1.51	3.9	3.6	550	4.5	5.1	900	5.1	6.0	1200	5.7	6.6	1600	6.0	7.2	2400	6.9	8.1	2750
N3-W41	2.35	3.0	2.7	550	3.6	3.9	900	3.9	4.8	1200	4.5	5.1	1600	4.8	5.1	1900	5.5	5.1	2100
N4-W50	3.50	2.1	1.8	550	2.7	2.4	900	3.3	3.3	1200	3.6	3.3	1400	3.9	3.3	1500	4.5	3.3	1500
N5-W60	5.17	1.5	-	550	2.1	1.5	800	2.7	2.1	900	3.0	2.1	900	3.0	2.1	900	3.7	2.1	900

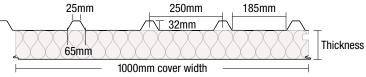
## **Cyclonic**

Panel Properties																			
Panel Thickness (mm)		50			75			100			125			150			200		
'R' Value (m²K/W)		1.60		2.30			2.90			3.60			4.20			5.50			
	ULS Design Wind Pressure (kPa)	Max Span (m)			Max Span (m)			Max Span (m)			Max Span (m)			Max Span (m)			Max Span (m)		
Wind Class		Single Span	Multi- Span		Single Span	Multi- Span	Max. Cantilever (mm)												
C1-W41	3.42	2.1	1.8	550	3.0	2.1	900	3.3	2.7	1200	3.6	3.3	1600	3.9	3.6	1800	4.5	3.6	1800
C2-W50	5.08	1.5	-	550	2.1	1.5	800	2.7	2.1	1000	3.0	2.4	1200	3.3	3.0	1300	3.7	3.0	1300
C3-W60	7.51	-	-	-	-	-	-	1.8	1.5	700	2.1	1.5	800	2.7	1.5	1000	3.0	1.5	1000
C4-W70	10.12	-	-	-	-	-	-	-	-	-	1.5	-	600	2.1	-	600	2.14	-	600

#### **Dimensions**

d) Combination Factor - Kc = 0.95

e) Non-cyclonic - Cfig = -1.57, Cyclonic - Cfig = -2.28



1. Wind speeds and coefficients based on AS 4055 - Wind Loads for Housing.

2. Roof pressure coefficients based on the following worst case assumptions:

a) External Pressure - Ratio of building height to least horizontal dimension on plan,  $\mbox{h/d} < 0.5. \mbox{ Cpe} = -0.9$ 

wall or is effectively sealed. Cpi = +0.2

c) Local Pressure - Least Horizontal Dimension on Plan < 20m (a = 4m). KI = 1.5

b) Internal Pressure - Non-Cyclonic: Building has no dominate openings & more than one permeable

- Cyclonic: Based on dominate opening pressure. Cpi = +0.7

### Self weight of the panel has been allowed for, plus an allowance of up to 25kg/m² (0.25kPa dead load) for light duty fittings (lights, etc.).

- separate loadcase.
  6. Distributed live load of 0.25kPa (as per AS/NZS 1170.1) has been allowed for.
- Fixing at each rib for non-cyclonic regions and each rib and pan for cyclonic regions with 14g tek screws (or equivalent) are required.

5. Concentrated load of 140kg (as per AS/NZS 1170.1) on any one panel has been allowed for as a

- 8. Overhangs:
  - a) Max. Overhang min. of value stated or 40% of backspan.
- b) Overhangs include an allowance for a 1.1kN concentrated load based on strength limit state as a separate loadcase.
- Span tables have been developed by Bligh Tanner Consulting Engineers by interpretation of physical testing conducted & reported by BRANZ.

# 3. Serviceability deflection limit of span/150 has been allowed for. 9. Spatest

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