



Rating and Regions Guidelines and Categories

A brief summary of references:

- *Class/Rating/Wind Pressure/Water Penetration*
- *What product should be ordered*
- *What to do if there are problems*

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Class/Rating/Wind Pressures/Water Penetration.

Class	Rating	Design Wind Pressure (Pa)					
		Over 1200mm from corner			Within 1200mm of corner		
		Serviceability	Ultimate	Water Penetration	Serviceability	Ultimate	Water Penetration
1	N1	500	700	150	Same as over 1200mm from corner		
1	N2	700	1050	150			
1	N3	1000	1500	150			
1	N4	1500	2300	200			
1	N5	2200	3300	300			
1	N6	3000	4500	450			
1	C1	610	2030	150	920	3000	150
1	C2	910	3010	200	1370	4470	200
1	C3	1330	4440	300	1990	6570	300
1	C4	1820	5990	450	2720	8880	450
10	N1	500	700	No Requirement	Same as over 1200mm from corner		No Requirement
10	N2	700	1050				
10	N3	1000	1500				
10	N4	1500	2300				
10	N5	2200	3300				
10	N6	3000	4500				
10	C1	610	2030		920	3000	
10	C2	910	3010		1370	4470	
10	C3	1330	4440		1990	6570	
10	C4	1820	5990		2720	8880	

Sources -

- **Ultimate Pressures** as per table 3.3 AS4055-2006 Amendment 1-2008
- **Serviceability Pressures** as per table 3.4 AS4055-2006 Amendment 1-2008
- **Water Penetration** as per table 2.4 AS2047-1999

Notes:

- Location of product within 1200mm of corner of building is applicable for C ratings only
- There is no requirement for rating the water penetration for non occupied dwellings
- Advance Metal Industries use a 150 pa sill as a standard sill

How to calculate the rating (Guide only, consult you SAA codes).

According to AS4055-2006, a copy of which should be obtained for full details, the steps are as follows:

1 Identify the region from map (Extracted from AS1170.2-2011 for clarity).

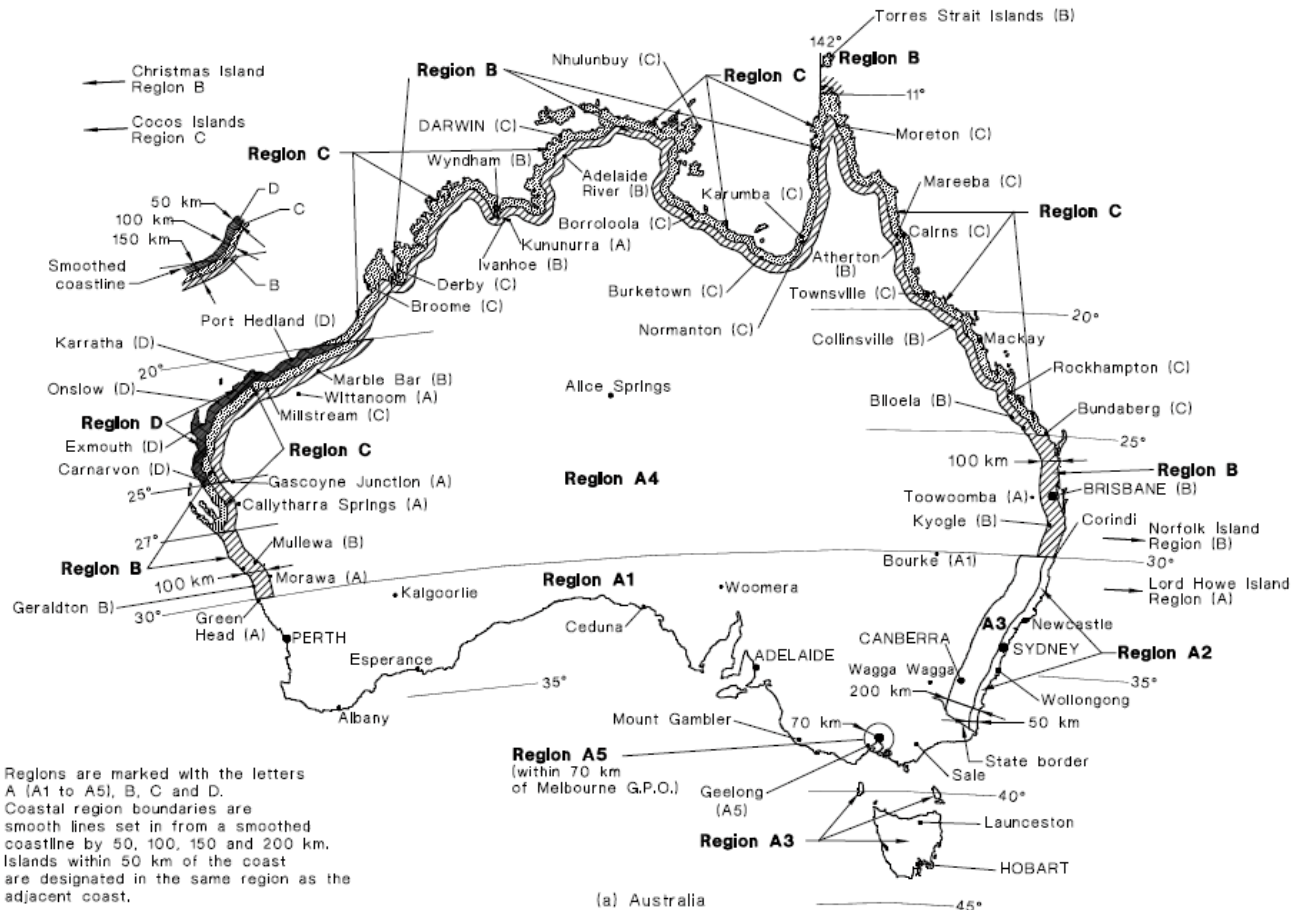


FIGURE 3.1(A) WIND REGIONS

2 Determine the terrain category for the specific site (TC1,TC 2, TC2.5 or TC3)

- i. Terrain category 1 (TC1) - Exposed open terrain with few or no obstructions, treeless and poorly grassed areas of at least 10Km width. Applies to large water surfaces for serviceability.
- ii. Terrain category 2 (TC2) – Open terrain including sea coast, airfields, grassland with few scattered trees with heights 1.5-10m tall.
- iii. Terrain category 2.5 (TC2.5) – Terrain with few trees or isolated obstructions, including agricultural land, cane fields or grass up to 600mm tall. This is an intermediate category between 2 and 3.
- iv. Terrain category 3 (TC3) – Built up areas in regions A and B with the equivalent of 10 house size obstructions (these can be trees or other buildings) per hectare. Regions C and D have a maximum of TC2.5 for 10 house size obstructions per hectare.

3 **Determine the Topographic classification for the site (T1, T2 or T3)**

Below is an extract from the code, this should be read in full for clarity if there is any doubt.

Taken from AS4055-2006 table 2.3

TABLE 2.3
TOPOGRAPHIC CLASSIFICATION FOR HILLS, RIDGES OR ESCARPMENTS

Average slope (ϕ_a)	Hill height (H) below which T1 applies for all sites on the hill, ridge or escarpment (m)	Site location (see Figure 2.2)				
		Lower- third zone (L)	Mid-third zone (M)	Top-third zone (T)		Over-top zone (O) (for $4H$ past crest of escarpments only)
				$H \leq 30$ m	$H > 30$ m	
<1:10	All H	T1	T1	T1	T1	T1
$\geq 1:10$ <1:7.5	$H < 20$	T1	T1	T2	T2	T1
$\geq 1:7.5$ <1:5	$H < 9$	T1	T1	T2	T3	T1
$\geq 1:5$ <1:3	—	T1	T2	T3	T4	T2
$\geq 1:3$	—	T1	T2	T4	T5	T3

4 **Determine the shielding factor (Full, Partial or None)**

- i. Full Shielding (FS) – Where at least 2 rows or houses or similar sized permanent structures surround the house. In regions A and B, heavy woodland will provide full shielding.
- ii. Partial Shielding (PS) – Applies where there 2.5 houses or house size trees or structures per hectare. In regions C and D, heavily wooded areas shall be considered to have partial shielding.
- iii. No Shielding (NS)- No permanent obstructions or less than 2.5 obstructions per hectare.

We recommend that the full section of the code be read to fully appreciate the implications, details and restrictions required. Once the information has been gathered, refer to the following table (Extract from AS4055-2006) to determine the rating.

The information contained herein is to give an appreciation of what is required for you to give us the information we need to ensure that correct product is provided.

For projects in regions C & D, the position relative to the corner of the building will also be a factor, any product within 1200 of a corner should be flagged as such, as the requirements for these may differ from those not within 1200mm of a corner.

TABLE 2.2
WIND CLASSIFICATION FROM WIND REGION AND SITE CONDITIONS

		Wind class														
Wind region	TC	Topographic class														
		T1			T2			T3			T4			T5		
		FS	PS	NS	FS	PS	NS	FS	PS	NS	FS	PS	NS	FS	PS	NS
Region A																
A	3	N1	N1	N1	N2	N2	N2	N2	N3	N3	N2	N3	N3	N3	N3	N4
	2.5	N1	N1	N2	N2	N3	N3	N2	N3	N3	N3	N3	N4	N3	N4	N4
	2	N1	N2	N2	N2	N3	N3	N3	N3	N3	N3	N4	N4	N4	N4	N4
	1	N2	N3	N3	N3	N3	N4	N3	N4	N4	N4	N4	N4	N4	N4	N5
Region B																
B	3	N2	N2	N3	N3	N3	N4	N3	N4	N4	N4	N4	N4	N4	N5	N5
	2.5	N2	N3	N3	N3	N4	N4	N3	N4	N4	N4	N4	N5	N4	N5	N5
	2	N2	N3	N3	N3	N4	N4	N4	N4	N5	N4	N5	N5	N5	N5	N6
	1	N3	N4	N4	N4	N5	N5	N4	N5	N5	N5	N5	N5	N6	N5	N6
Region C																
C	3	C1	C1	C2	C2	C2	C3	C2	C3	C3	C3	C3	C3	C3	C4	C4
	2.5	C1	C2	C2	C2	C3	C3	C3	C3	C3	C3	C4	C4	C4	C4	NA
	1,2	C2	C2	C2	C2	C3	C3	C3	C4	C4	C3	C4	C4	C4	NA	NA
Region D																
D	3	C2	C3	C3	C3	C4	C4	C3	C4	C4	C4	NA	NA	NA	NA	NA
	2.5	C2	C3	C3	C3	C4	C4	C4	NA	NA	C4	NA	NA	NA	NA	NA
	1,2	C3	C3	C4	C4	NA	NA	C4	NA	NA	NA	NA	NA	NA	NA	NA

LEGEND:

FS = full shielding

PS = partial shielding

NS = no shielding

N = non-cyclonic

C = cyclonic

N/A = not applicable, that is, beyond the scope of this Standard (use AS/NZS 1170.2)

TC = terrain category

Bushfire Requirements.

You should make yourself familiar with AS 3959-2009 – Construction of building in bushfire prone areas. This can impact on the glass requirements as well as screening for the windows and doors and will probably impact on other areas of the building as well.

Requirements in some cases are for full cover screens over both the sliding and fixed panel of the window. To this end we have standardised our full cover screens (both fly and barrier) with the following features –

- Aluminium fly mesh (option to upgrade to stainless steel)
- Metal spline in lieu of standard
- Face fixed to frame using tamper resistant fasteners

What to do if problems surface

Unfortunately things do not always run smoothly, we do our best to get your product to site in good order and condition and timing, but should an issue present itself, or you are dissatisfied in something we do, please tell us. Without knowing about these issues, we cannot resolve for them for you, and stop any recurrence.

You feedback is important, we want to know how we can provide the best service and product to fit your needs.

For all delivery or product quality issues, call or email our operations

operations@amia.com.au or 02 6652 6955

For any other assistance please call any of our sales team on 02 6652 6955 or email

Sales – sales@amia.com.au

Sales support - support@amia.com.au

Thank you for taking the time to read through. I trust it has been of value and will assist you in your business when dealing with our products.

In anticipation of a prosperous business partnership

Tom Schuf
Sales Manager



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