WIND REGIONS OF AUSTRALIA - AS/NZS 1170.2:2021

DOMESHELTER® AUSTRALIA

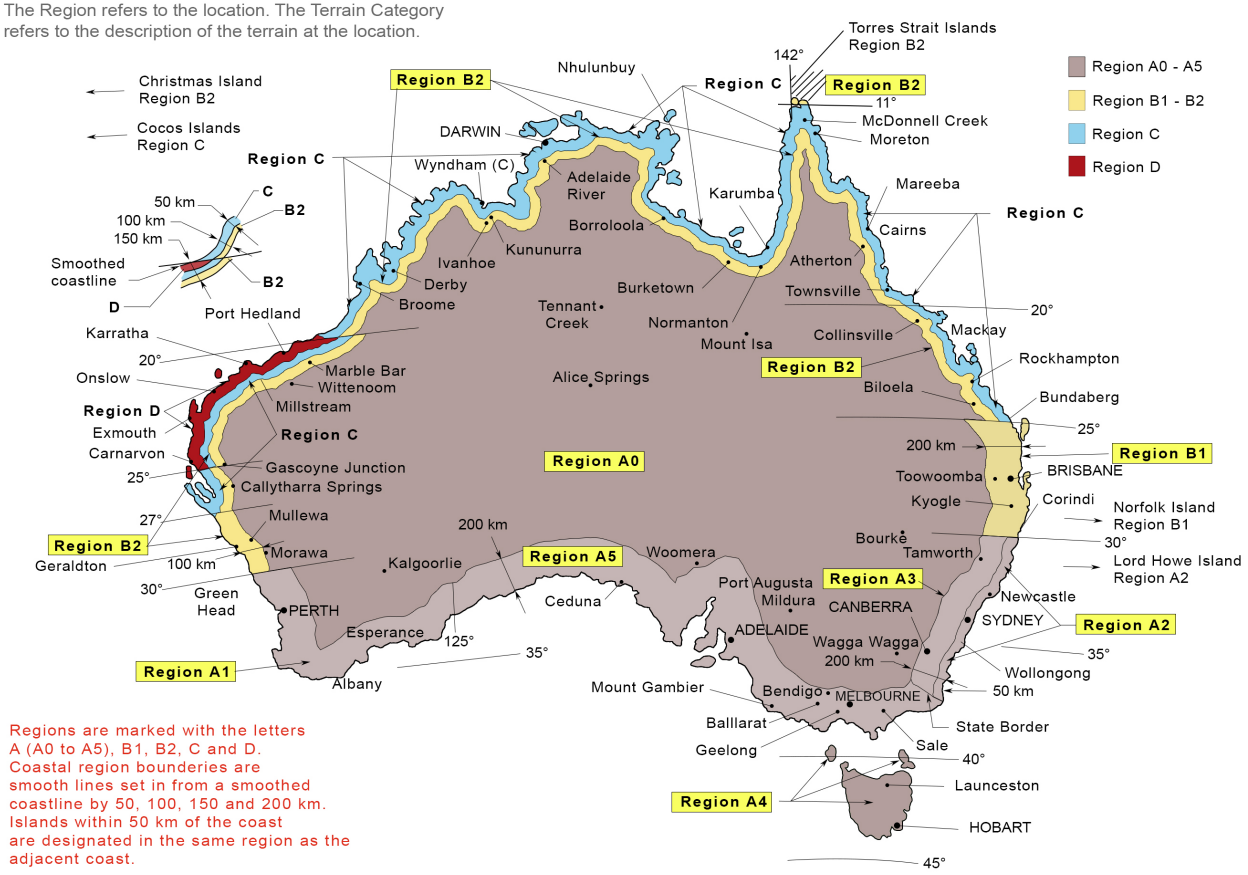
With over 8000 Shelters delivered to the remotest sites in Australia and exported to over 50 countries throughout the world, DomeShelter Australia is well experienced in designing and engineering Fabric Structures for all wind code areas and conditions. Potential wind speed is just one of many factors considered when designing any building, including DomeShelter™ Fabric Structures.

Our expert team of Designers and Engineers will ask where your DomeShelter™ Structure will be located, and if there are any specific site criteria to be met and develop a certified engineering solution that works!
In Australia, we design product in accordance with AS/NZS 1170.2:2021 (R2016) which classifies Wind Loading in the following map and tables.

AUSTRALIAN WIND REGION	Ultimate Regional Wind Speed (km/hr)	Importance Level	Terrain Category	Design Wind Speed (km/hr)
Region A0 - A5	162	1	2	148
		2		154
		3		162
Region B1	205	1	2	164
		2		177
		3		194
Region B2	205	1	2	163
		2		176
		3		192
Region C	238	1	2	192
		2		207
		3		225
Region D	288	1	2	226
		2		246
		3		271

*Design working life 25yrs/max avg. height of 10m

The Region refers to the location. The Terrain Category refers to the description of the terrain at the location.



Regions are marked with the letters A (A0 to A5), B1, B2, C and D. Coastal region bounderies are smooth lines set in from a smoothed coastline by 50, 100, 150 and 200 km. Islands within 50 km of the coast are designated in the same region as the adjacent coast.

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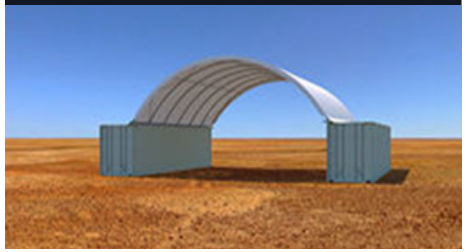
TERRAIN CATEGORY

Terrain Category is a measure of the wind-breaking effect on the terrain surrounding your building site. The more your Fabric Structure is surrounded by trees, other buildings, and structures, the less exposed it is to the full force of the wind.

It's broken into three main categories:

CATEGORY 1



- This requires the strongest DomeShelter™ Structure.
- This exposed open terrain condition is rare, with few or no obstructions.
- Isolated Fabric Covered Structures in flat, treeless, poorly grassed areas of at least 10km width would be considered Category 1.

CATEGORY 2

- This is the most common terrain category for rural sites, and all Domeshelter™ Structures are fabricated to Category 2 as standard.
- Open terrain, grassland with few, well-scattered obstructions having heights generally from 1.5 m to 10m.

CATEGORY 3

- Requires least Structural strength.
- Terrain with numerous closely spaced obstructions 3 m to 5 m high.
- This is the most common terrain category in suburban and wooded areas.

IMPORTANCE LEVELS

Level 1	Temporary Buildings or Buildings with a low degree of hazard to life and other property in case of failure
Level 2	Buildings not assigned levels 1, 3 or 4 e.g. Main Workshop, Offices, Medium size Manufacturing facility
Level 3	Buildings designed to contain a large number of people
Level 4	Buildings essential to post disaster recovery or associated with hazardous facilities

The Building Code of Australia (BCA) has four importance levels used to define the risk that a structure composed of steel is likely to pose on surrounding people.

The importance level is based purely on the safety of the building, and therefore is integral to be considered for correct engineering.

Being a safe environment, and Engineered to Protect, as standard all DomeShelter™ Structures are fabricated to Imp. Level 1, however can be engineered to Imp. Level 2, 3 or 4 upon request.

*Design Wind Speed is calculated using specific Design Criteria (Terrain Category, Importance Level etc) related your site requirements. An example is: Wind Region Reg B, Importance level 1, Terrain Category 2, Design working life of 25 years and a maximum average height of 10m = Design Wind Speed 164km/hr. While terrain category 2 is the most common for DomeShelter™ Structures, it can vary, and in this instance a consultant will ensure this is considered for engineering. All Fabric Structures should take the wind code and terrain category into account, no matter the geographic location. Please note that wind speeds are for indication only and are subject to final design parameters of site and scope.

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