

Roof and wall cladding

Environment	Location	Minimum metal coating in accordance with AS 1397: Metallic coated steel	Minimum metal coating in accordance with AS 1397: Metallic and organic coated steel
High (mild steel corrosion rate 50 to 80 µm/y)	Typically more than 200 m from <i>breaking surf</i> or aggressive industrial areas or within 50 m from sheltered bays.	AZ150 aluminium/zinc or AM125 aluminium/zinc/magnesium	AZ150 aluminium/zinc or AM100 aluminium/zinc/magnesium
Very High (mild steel corrosion rate 80 to 200 µm/y)	Typically extends from 100 m inland from <i>breaking surf</i> to 200 m inland from <i>breaking surf</i> , or within 200 m of aggressive industrial areas.	Not suitable	AZ200 aluminium/zinc or AM150 aluminium/zinc/magnesium
Very High (mild steel corrosion rate 80 to 200 µm/y)	Typically within 100 m of <i>breaking surf</i> .	Not suitable	Not suitable

Table Notes

- (1) Low — remote inland includes dry rural areas remote from the coast or sources of pollution. Many areas of Australia beyond at least 50 km from the sea are in this category, including most cities and towns such as Canberra, Ballarat, Toowoomba, Alice Springs and some suburbs of cities on sheltered bays such as Melbourne, Hobart, Brisbane and Adelaide that are more than 1 km from the sea. However each of these have many exceptions which are in more corrosive categories.
- (2) Medium — urban inland, coastal or industrial typically coastal areas with low salinity around sheltered bays, such as Port Phillip Bay. This extends from about 50 m from the shoreline to a distance of about 1 km inland but seasonally or in semi-sheltered bays extends 3 to 6 km inland. Along ocean front areas with *breaking surf* and significant salt spray, it extends from 1 km inland to about 10 to 50 km depending on wind direction and topography. Much of the metropolitan areas of Wollongong, Sydney, Newcastle, Perth and the Gold Coast are in this category. This can extend to 30 to 70 km inland in South Australia while on some evidence, other southern Australian coastal zones are in this, or a more severe category. This also includes urban and industrial areas with low pollution and for several kilometres around large industries such as steel works and smelters.
- (3) High typically occurs on the coast around sheltered bays. Category high extends up to 50 m inland from the shoreline. In areas of rough seas and surf it extends from several hundred metres to about 1 km inland. As with other categories the extent depends on wind, wave action and topography. The category will also be found inside industrial plants and can influence a distance of 1.5 km down wind of the plant.
- (4) Very high is typical of offshore conditions and is found on the beachfront in regions of rough seas and surf beaches. It can extend inland for several hundred metres. It is also found in aggressive industrial areas with a pH of less than 5.
- (5) All locations described in the table contain variations of greater corrosion severity. If significant, this must be addressed by designing for the most severe environment.
- (6) In locations where metallic coatings are not a suitable form of corrosion protection, the roof sheeting must be of a type that has been designed and manufactured for such environments.

Table 7.2.2b: Acceptability of contact between different roofing materials – Stainless steel accessory or fastener

Cladding material	Atmosphere classification - Medium to very high as per Table 7.2.2a	Atmosphere classification - Low as per Table 7.2.2a
Copper and copper alloys	No	Yes
Stainless steel (300 series)	Yes	Yes
Zinc-coated steel and zinc	No	Yes
Zinc/aluminium coated steel	No	Yes