

BV01 Protection of Metal Wall Cladding from Copper Treated Timber

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Version 3

Acceptable Solution E2/AS1 9.6.9.2 says that profiled metal wall cladding must be separated from copper treated cavity battens by a layer of underlay, or by pre-priming the batten. The Metal Roofing and Wall Cladding Code of Practice (COP) says that metal cladding should be separated from wet timber, treated or otherwise. That is because both treated and untreated wet timber is corrosive, as wet radiata is acidic. While wet CCA treated timber is more corrosive than wet untreated timber, the difference is not great.

The greater variable is time of wetness of the timber. A cavity batten would be assessed as being in a damp environment and not exposed to salt spray. An open front building may be damp and exposed to salt spray, depending on its location. The wetness of the timber at time of installation does not have a great effect on cladding durability, provided the timber is allowed to naturally dry.

Experiments conducted at our exposure sites showed that compared to metallic coated sheets, pre-painted metal provides significant protection against treated and untreated wet timber. These tests are still under way.

Yet another variable is the type of copper treatment. CCA treated timber has relatively low levels of copper compared to some other treatments. AQC and Copper Azole treatments both have much greater copper levels, and this copper is more migratory, rising to the surface as levels drop. LOSP and Boron treatments have no copper element or other known corrosive ingredients.

Historically we have not witnessed corrosion problems with metal cladding laid directly onto CCA treated battens in farm buildings or drained cavities. However, coil manufacturer's warranties do not cover corrosion caused by contact with corrosive materials such as copper, and it is up to the designer to take appropriate steps to minimise risk.

The following COP recommendations are a general guide only, and design decisions should be based on the expected micro climate, including exposure to salt spray and other contaminants, time of wetness, client expectations and accessibility for maintenance or replacement.

Updates, Disclaimer, Copyright and Scope

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This bulletin is subject to the Disclaimer, Copyright and Scope of the NZ Metal Roof and Wall Cladding Code of Practice, available at <https://www.metalroofing.org.nz/copfull/introduction>.

Separation and Isolation recommendations for metal cladding on timber

Treatment	Metallic Coated			Pre Painted		
	Dry	Damp	Wet/Salty	Dry	Damp	Wet/Salty
None						
LOSP/Boron						
CCA						
AQC Cu/Azole						

	Can be directly fixed
	Separate - Underlay or painted battens
	Isolate - Builders tape, DPC or Closed Cell Foam

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