

Written Plywood Specification

All roofing and wall cladding profiles installed by Architectural Metalformers are installed over a plywood substrate. The only exception is the Lockseam profile, which is specifically designed to be fixed directly to purlins or extruded aluminium rails, eliminating the need for a plywood substrate. The final finish of the cladding profile can be adversely affected by the incorrect installation of the substrate.

1. Plywood Specification

Plywood shall be a CD structural grade in accordance with AS/NZS 2269.0, with the upper (exposed) face plugged and sanded to provide a smooth, uniform surface suitable for metal cladding installation.

2. Treatment Requirements

Plywood must be H3-treated with a water-based preservative to ensure durability and compliance with NZ building standards.

3. Board Spacing, Tongue and Groove Preference

Tongue and groove (T&G) plywood is preferred. If unavailable, a 3mm gap must be maintained between sheets to allow for expansion and contraction.

4. Minimum Thickness and Orientation

The plywood substrate must be a minimum of 15mm thick and laid with the face grain running perpendicular to the supporting structure to ensure structural integrity.

5. Fixing Requirements

- Plywood must be screw-fixed using countersunk, self-drilling screws
- Screws must be corrosion-resistant (stainless steel preferred)
- Spacing: 150mm on edges and 200mm on internal purlins
- Nails, staples, or other fasteners are not permitted

6. Purlin and Rafter Considerations

For rafters at 900mm centres, it is recommended to use 90mm x 45mm purlins laid flat at 600mm centres. All plywood edges must be fully supported.

7. Fixing Spacing

Fixings should be installed at 150mm centres around the perimeter. Internal fixings should be placed at 300mm centres. All fixings must be stainless steel with a minimum embedment depth of 35mm.

8. Gutter Line Overhang

At the gutter line, plywood must overhang the fascia board by 40mm. This, combined with the drip-edge flashing, ensures the required 60mm runoff into an external gutter. Edges must remain square cut.

9. Roof Termination into Membrane Gutters

Where the roof terminates into a membrane-type gutter or roof, the plywood planes must finish flush. A minimum 50mm upstand should separate the two planes.

10. Alignment and Accuracy

Use string lines to ensure all ridges, hips, and valleys are accurately aligned

11. Final Surface Preparation

Upon completion, all plywood surfaces must be swept clean to remove any debris before proceeding with cladding installation.

12. Non-Standard Roof Designs

For non-standard roof structures such as domes or barrel vaults, please contact the Architectural Metalformers (AMF) office before framing begins.