Installation & Handling Guide for PlyClad Plywood.

Pre-Installation Inspection.

Examine the plywood for any visible defects such as warping, cracks, or delamination. Ensure the surface is smooth and free of significant knots or holes. Panel surfaces should be free from dirt and loose wood fibres.

Storage & Handling.

bbi plywood should be handled and stored with care. In order for you to get the finish and end result that you are looking for:
The product should be stored until used in a dry area protected from the sun, rain, wind or snow. The product should not be placed directly on the ground and should be supported with at least three but preferably four supports.

bbi plywood should always be stored flat and not on the edge.
If possible, store in the room for at least 24 hours prior to installation when using bbi plywood inside, this will give it time to reach equilibrium moisture content and reduce the potential for movement after installation.

For further information about storage and handling recommendations, please refer to standard AS/NZS 2269. Additionally, a Material Safety Data Sheet is available on our website www.bbi.net.nz.

Wall Framing.

Wall framing must comply with the New Zealand building code requirements. Nogs are not required to achieve the bracing unit loadings.

Fixings & Adhesives.

For Bracing Rated Plywood:
50 x 2.8 flat head galvanised nails at 150mm centres around the perimeter of the sheet with fixings at 300 centres on the internal stud.

For Non-Structural Plywood:
Plywood can be installed using a variety of different fastening methods depending on the type of finish desired.
Apply small spots of construction grade adhesive beading and press to the framing. Fix sheets to wall using 40mm brads at 150mm centers around the perimeter of the sheet with fixings at 300mm centers on the internal stud.

However, as there is no building standard for installing non-structural plywood, builders may use variations of fixing patterns.

Some important notes when fixing bbi Cladding products:

- It is recommended that you always use stainless steel or silicon bronze fasteners.
- Always use extruded aluminium flashings that have been tested by BRANZ for weather tightness.
- Never nail inside the groove with either the deep groove or shallow groove panels.
- AraucoPly Cladding must always be installed vertically in an exterior situation.
- As soon as possible and preferably before any exposure to weather AraucoPly Cladding must be sealed and protected
- with at least two coats of premium exterior acrylic paint.
- AraucoPly Cladding must be properly maintained on a regular ongoing basis. It must be kept clean and the paint must
- be maintained in accordance with the paint manufacturer specifications.

Frame Connections.

GIB Handibrac® with M12 hold-down bolts to achieve bracing ratings.
Not applicable for non-structural linings.

Durability.

bbi® PlyClad plywood has a serviceable life of at least 15 years providing they remain dry and are re-coated every 2 years.

Installation Requirements.

bbi® PlyClad must only be installed once the building has been fully enclosed and the moisture content of the supporting timber framing does not exceed 18%.

Installation.



Timber

90 x 45 H3.1 Timber Frame

Plywood

To achieve a bracing rating, sheets must be fixed with 50 x 2.8 Galvanized nails at 150mm centers around the perimeter, and 300mm centers on the internal stud.

For Non-Structural plywood this must be fxed with adhesive beading with 40mm brads at 150mm centers around the perimeter, and 300mm centers on the internal studs.

Finishing Requirements.

Edge Sealing
All plywood panels experience faster moisture penetration through panel ends and edges. As a result, edges and ends should be sealed. Edge sealers help to minimise sudden changes in panel moisture content due to normal climatic changes after installation.

Surface Preparation
All finishes should be applied as soon as possible after panel installation. Apply finishes during favourable weather conditions and always follow the finish manufacturer's specific application recommendations for plywood products. Use only first-quality finishes and apply according to the application rates recommended by the finish manufacturer.
The initial coat should be applied by brush. Sprayed on finishes should be either back brushed or back rolled while wet.
Additional coats may be applied conventionally.
Recommended Finishes

Solid Colour Stains:
Two coats of a high quality oil base or latex opaque stain help mask colour variations between wood repairs and the surrounding wood. Face grain is also masked with opaque stains but allows rough sawn textures to remain visible. It is also recommended that the desired finish be applied to a representative panel sample which contains typical colour variations and repairs to ensure that the panel's finished appearance is acceptable.

Acrylic Latex Paint:
If a painted finish is desired, an acrylic latex paint system composed of at least one stain resistant primer coat and topcoat is recommended for textured cladding. Acrylic latex produces a

durable finish that masks textured surfaces more than an opaque stain and can obscure grain and colour differen-ces. Again it is imperative to follow the paint manufacturer's recommendations for plywood cladding application.
The use of dark colours is not recommended. The use of colours with a minimum Light Reflectance Value (LRV) of 40% will extend the life of the Plywood and coating.

Design Considerations.

bbi® PlyClad ranges are for use in dry, internal, protected locations of thermally insulated buildings which are heated, intermittently heated and predominantly unheated in accordance with NZS 3602 Section 110, Table 1E and Section 205. The internal environment must be such that the moisture content of the supporting timber framing does not exceed 18%.

Sheets must be located within the building thermal envelope and must either be exposed to view or be in locations easily accessible for inspection.

bbi® PlyClad must not be located in any high moisture environment or in areas subject to water splash. They must not be used in areas such as bathrooms, toilets, laundries or kitchens. Sheets must not be used in saunas or steam rooms.

Sheets must not be exposed to temperatures of 50ºC or greater for prolonged periods. Refer to appliance and fitting manufacturers for installation details.

Mould on Plywood Disclaimer.

Moulds and algae can develop on both treated and untreated plywood products. This growth is influenced by environmental factors such as temperature, humidity, moisture, and the presence of airborne mould spores.

Mould growth often appears as unsightly black or green patches, spreading quickly under favourable conditions, such as warm and humid weather. While moulds affect the surface, they do not penetrate the structure of the plywood. However, decay fungi are capable of penetrating and growing within the wood.

Moulds can develop on untreated plywood, as well as on treated plywood such as H3.1 LOSP and H3.2. If the plywood becomes damp, whether in storage or in the field, and environmental conditions are ideal, mould growth may occur. Plywood exposed to the elements can also develop mould in wet and warm conditions.

PREVENTION AND TERMINATION:
To prevent mould growth, it's essential to control the moisture content. Mould growth ceases when the plywood's moisture content falls below approximately 18%. Brush off any visible mould, and similarly, surface algae will disappear when dried.

RECOMMENDED ACTION:
If mould appears on treated plywood, no specific action is needed during the building process. However, it is advisable to cut out bottom plates near doors and windows early and ensure proper drainage for floors exposed to wet weather. Swiftly closing in the structure is also important to prevent prolonged exposure. Should the plywood remain exposed for an extended period due to construction delays, further investigation may be necessary. Depending on local conditions, an extended exposure may necessitate specialist assessments to check for decay fungi.

REMEDIATION OPTIONS:
While mould does not affect the structural integrity of plywood, cleaning products such as '30 Seconds Outdoor Cleaner' can restore the appearance of the surface.

Prevention of Fire Occurring.

Separation or protection must be provided to bbi® interior lining plywood from heat sources such as stoves, heaters, flues and chimneys. Part 7 of NZBC Acceptable Solutions C/AS1 to C/AS6 and NZBC Verification Method C/VM1 provide methods for separation and protection of combustible materials from heat sources.