

IBUILTTM PLY

IBUILT PLYWOOD

September 2019

IBuilt are specialists in plywood and supply a full range of structural and non structural plywood products. Reliable and independently tested, IBuilt Plywood is perfect for a variety of uses such as flooring, roofing, membrane substrates, internal linings, soffit linings, structural bracing and claddings.



Certification for New Zealand

IBuilt Plywood is manufactured for the New Zealand and Australian markets to meet AS/NZS 2269.

All Structural Plywood is independently certified by the Engineered Wood Products Association of Australasia (EWPPAA). This provides assurance that the plywood is produced from well managed forests and other responsible sources.

All IBuilt Structural Plywood products meet the requirements of the New Zealand Building Code causes:

B1 Structure

B2 Durability

F2 Hazardous Building Materials

Range

NZWOOD stock a full range of BD, CD and DD grade flooring and roofing plywood in 2400mm, 2700mm.

Structural Plywood Range						
Thickness	Pack Size	T&G	F8	F11	2400mm	2700mm
7mm*	75		•		2440mm	
9	60		•		•	•
12	45		•		•	•
15	35	•	•		•	•
17	32	•	•	•	•	•
19	28	•	•	•	•	•
21	25	•	•	•	•	•
25	20	•	•		•	•

*Note 7mm plywood is supplied 2440mm long for bracing applications.

Structural Plywood Identification

- Structural plywood is identified by checking the rear of the sheet for the following inkjet printer markings:
- Manufacturers name or brand (i.e. JNL) and EWPPAA mill number.
- The word 'Structural'
- Reference to AS/NZS2269.0:2012
- Stamped PAA Product Certified
- Marked COC
- Visual face grade for the front and rear veneer. (i.e. BD/CD/DD)
- Sheet Glue bond. (i.e. A Bond)
- Sheet Stress grade. (i.e. F8)
- Panel construction code (i.e. 17-22-5) 17mm thick – 2.2mm Face Veneer – 5 Veneers
- Formaldehyde emission class. (i.e. Super EO)
- If treated, treatment plant and type stamped on the sheet (i.e. H3.2 CCA) as a separate stamp.

Each sheet is also stamped with a mill code that identifies when the sheet was made, batch and the time of manufacture. This code is critical when product identification is required with the mill.

Veneer Bond

All Structural Plywood utilises a Phenolic Formaldehyde Type A glue bond (dark red in appearance) that provides a permanent bond between each veneer once cured.

Emissions

Formaldehyde emissions from the finished ply sheet are at similar levels to that which are present in the parent wood. The Structural Plywood has a 'Super EO' rating (less than 0.3 mg/l) which is the lowest emission class rating that can be achieved.



Face Grades

Face grades are defined by the following classes which are defined in AS/NZS2269 Structural Plywood standard.

- BD
 - 'B' quality face one side. Minor defects such as small knot holes and splits are filled and sanded which is suitable for a quality paint finish in visual areas.
 - 'D' quality back face.
 - Applications could include interior linings.
- CD
 - 'C' quality face one side. Sound knots less than 50mm and open defects are filled and sanded.
 - 'D' quality back face.
 - Applications could include substrates for membrane systems, formwork, flooring and roofing, bracing and cladding.
- DD
 - 'D' quality both faces. Non-appearance grade that contains knots less than 70mm and other unfilled defects. This is the most basic structural panel.
 - Applications include bracing, pallets, roofing substrate.

Note – Timber is a natural product. Even though veneers may be graded as a 'B face' the difference in growth patterns between trees results in differing grain patterns from sheet to sheet. Specifiers that are after a particular visual grade should inspect sheets if a clear finish is required.

Plywood face grades are defined by the amount of splitting and/or knots that are visible on the outer veneers. Split length, imperfections and knot size/spacing all contribute towards the grading classification. Refer to AS/NZS 2269 for further detailed information regarding classifying veneer grades.

Weather Checking

External applications such as cladding can result in face 'checking' over time due to the sheet expanding and contracting. This is a natural weathering process and does not affect the structural integrity of the ply. IBuilt recommends a band sawn face when using plywood externally which helps minimise the visible effects from weathering.

Treatment

The plywood range is readily available in both treated (typically CCA) and untreated.

H3.2 CCA

Treated Plywood is impregnated to H3.2 CCA (Copper Chrome Arsenic) Hazard class treatment to AS/NZS 1604.3.2012 (Specification for Preservative treatment). H3.2 CCA treatment leaves a green appearance to the ply sheet. Once treated the plywood is re-dried to achieve a dry flat panel. The drying process also ensures the panel can return to its original dimensions.

During the drying process, timber fillets are used to separate the sheets while stacked. These fillets leave lighter colour bands across the sheet but usually fade over time. This should be considered if the plywood is in a visual location and left uncoated.

H3.1 LOSP

Light Organic Solvent Preservative – Is a clear solvent based treatment. Solvent based preservatives can emit a strong odour, ensure the area is well ventilated while the solvent levels reduce during construction.

LOSP based treatment (or H3.1) is available on request only and is subject to terms and conditions.

Do not use un-treated plywood in weather exposed locations.

Substrate Use

Structural Plywood is recommended as a substrate for permanent weather barrier systems such as roofing shingles, tiles, and under membrane systems.

A minimum C grade face is recommended for roof and deck membrane systems. Membrane adhesives are not compatible with H3.1 LOSP based treatments. Refer to the membrane system's specifications also.

Construction Exposure

IBuilt Plywood can withstand normal weather exposure for up to 3 months during construction. It is recommended that plywood is covered during construction to minimise staining and weather checking.

Installation

On floor Joists:

IBuilt Plywood when installed on a floor joist system must be installed perpendicular to the run of joists. Sheets must be fully screwed and glued using an approved construction adhesive. Construction glue must be used to the full perimeter of the sheet and to all intermediate joists (Refer to the flooring installation guide also).

On wall framing:

Wall framing is to be constructed in accordance with NZS3604:2011 and the New Zealand Building Code.

When IBuilt Plywood has been specified as a floor diaphragm or wall bracing system then the fixings shall be installed as per the engineer's details.

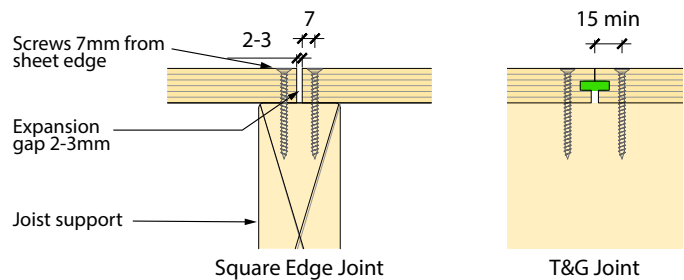
Fixing generally to walls and floors:

Fix nails or screws at 150mm centres around panel edges and 300mm on all intermediate supports. Fixings should be 7mm min from sheet edges for square edge panels and 15mm minimum for tongue and grooved edges. Corrosion resistant fasteners (hot dip galvanised fasteners or stainless steel) must be used when using H3 CCA treated plywood. Stainless Steel nails must be annular grooved.

Ply Thickness	Timber Framing		Steel Framing***	
	Flat Head*	Screws**	Thick <1.5mm	Thick <2mm
12	50 x 2.8	8 x 40	10-24-40	10-16-40
15	50 x 2.8	8 x 40	10-24-40	10-16-40
17	60 x 2.8	8 x 50	10-16-45	10-16-45
19	60 x 2.8	8 x 50	10-16-45	10-16-45
21	60 x 2.8	10 x 50	10-16-45	10-16-45
25	75 x 3.15	10 x 50	10-16-45	10-16-45

Expansion Gaps

2-3mm Expansion gaps must be left to the square ends of the sheets to allow for expansion when installed as flooring and roofing. The tongued edge can be installed with no gap as there is a relief rebate on the back face of the sheet which allows for expansion and contraction.



Bracing

Bracing Plywood can be specified and used for wall bracing systems. When used for bracing, wall framing is to be constructed in accordance with NZS3604:2011 and the New Zealand Building Code. Plywood brace values can be applied to any plywood sheet provided that the min thickness is 7mm and has a minimum F8 stress grade.

Bracing units are based on P21 testing data conducted by Scion and the EWPA. Please refer to the IBuilt Plywood Bracing brochure for further information and installation requirements.

Roof and Flooring Span Tables

Plywood Roofing and Flooring products are available as tongue and grooved panels, with the distinctive green tongue. Plywood green tongue plywood will eliminate the use of subfloor blocking in a number of instances, except where overlaid with membrane roofs or where diaphragm action is required. Utilising tongue and groove plywood together with polyurethane adhesive and proper fixings will help achieve a squeak free floor system.

Refer to the I-Built Roofing, Flooring and Decking brochure for additional information relating to plywood spanning capabilities, fixings and installation requirements.

All products and relative statements within this document are subject to the applicable products being installed in accordance with information mentioned, and subject to any governing codes of practice. New Zealand Wood Products retains the right to change specifications without notice. Every care has been taken in preparing the information contained within this publication, however, the company cannot accept responsibility for any inaccuracies that may have arisen, and cannot accept liability for loss or damage (either direct or consequential) arising out of or in relation to use or application of the said information.

No part of this publication may be reproduced without prior written consent of New Zealand Wood Products Limited.

NZWOOD
NEW ZEALAND WOOD PRODUCTS LIMITED

149 Kerrs Rd, Wiri, Auckland

PO Box 76412, Manukau, Auckland 2241, New Zealand

Tech Info Line: 0800-022-352

Phone: +64-9-268 6540

Fax: +64-9-268 6540

sales@nzwoodproducts.co.nz
techinfo@nzwoodproducts.co.nz

www.nzwoodproducts.co.nz
www.ibuilt.co.nz