



# LongSpan

## Australian Standard F14 plywood flooring AS/NZS2269

June 2008

**LongSpan** is a tongue and grooved structural plywood panel designed for use in domestic, commercial and industrial flooring applications. It provides a complete flooring system for both wet (panels must be sealed\*) and dry areas.

**LongSpan** is manufactured to Australian Standard AS/NZS2269:2006 in accordance with the independent quality control program of the Engineered Wood Products Association of Australia (EWPAA). Boral Plywood products have Chain of Custody certification through the Australian Forestry Standard (AFS), AS4707:2006, and Programme for the Endorsement of Forest Certification (PEFC).

**LongSpan** is made from plantation timber veneers with a phenol formaldehyde type "A" bond giving a permanent, waterproof glue line. Unlike particleboard flooring, which is manufactured with urea formaldehyde, formaldehyde emission from **LongSpan** is minimal. It usually off gases before leaving the mill and is **well below the most stringent standard of E<sub>1</sub> (0.1ppm)** and in line with background air levels.

Plywood is the only wood based panel with predictable design properties. This is why it is the only wood based panel to be included in the SAA Timber Structures Code (AS1720) as an engineered panel.

**LongSpan** offers distinct benefits to the builder:

### Superior Strength and Stiffness

relative to weight give **LongSpan** an advantage in all applications, industrial and commercial floors, storage decks, gymnasiums and floors in sporting complexes. This translates to a thinner panel for the same job when compared to particleboard.



### Load Recovery

**LongSpan** has the ability to recover elastically to its original position even after bearing incredibly high loads.

### Lightweight Sheets

**LongSpan** is strong but still light enough to be installed quickly and easily by one person, saving time and money.

### Dimensional Stability

**LongSpan's** cross laminated structure helps to hold dimensions better than most other timber based panels.

### Good Workability

**LongSpan** is easy to saw, drill or nail and has full length tongue and grooving to enable easy keying of panels.



### Cost Effectiveness

A 120 square meter floor area can be laid in approximately two hours and becomes a sturdy platform for the remainder of construction. Time is saved and as one product is used for the whole layout there is less waste.

### Selecting your LongSpan System

**LongSpan's** stress grade and range of sheet sizes and thicknesses provides the designer and builder with the **most cost effective** flooring solution for all flooring applications.

### Residential Applications

The table below sets out the recommended thickness of **LongSpan** for standard and maximum joist spacings for residential flooring applications. These recommendations are in accordance with the Australian Standard National Timber Framing Code (AS 1684), suitable for maximum design live loads of 2.7kN (point load) and 3.0kPa (uniformly distributed live load).

### Product Description

Floorwood	AS/NZS2269 Structural Plywood
Veneer Grades	"C" face & "D" back
Veneer Species	Araucaria, Southern Pine, Radiata
Surface Finish	Filled and sanded face
Adhesive	Type "A Bond" phenol formaldehyde
Stress Grades	F14 in bending
Tongue material	Polypropylene

	'C' Face
<b>Filled Holes:</b>	<= 50mm across grain. No limit
<b>Knots 1:</b>	<= 50 mm across grain. No limit
<b>Knots 2:</b>	<= n/a
<b>Filled Splits:</b>	<= 9mm across grain & <= 600mm long.**

\*\* Refer to AS/NZS 2269 for more information.

### Recommended thicknesses and sheet sizes for residential applications

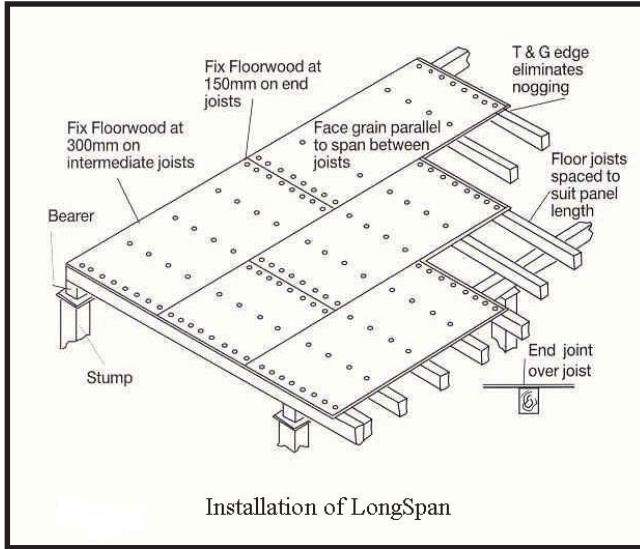
Thickness mm	Face Veneer Thickness	Max. Span F14 Stress Grade	No. Veneers	Approx. Weight kg/sheet	
				2400mm	2700mm
12	2.4	440	5	20	25
15	3.0	540	5	25	32
17	2.4	600	7	28	36
19	3.0	660	7	31	40
21	3.0	710	7	34	44
25	3.0	930	9	41	53

\* Please refer to the EWPAA Flooring manual for further information regarding sealing

**LongSpan** must be installed in accordance with the following manufacturer's recommendations.

**Layout**

- The face grain of the panel must run parallel to the span, at right angles to the joists.
- Butt joints (ends of the panels) must be made on a joist.
- Butt joints should be staggered in alternate rows to give a rigid diaphragm.
- The face of **LongSpan** must be laid uppermost. The **LongSpan** label is on the back of the panel.
- Moisture expansion and contraction should be allowed for in the flooring design by leaving small movement joints at panel perimeters (2-3mm).



**Minimum Fixing Specifications**

*Hand driven nails*

2.8 min. dia. flathead or bullet head nails of length at least 2.5 times the **LongSpan** thickness.

*Gun driven nails*

2.5 min. dia. gun nails of length at least 2.5 times the **LongSpan** thickness.

*Screws to timber joists*

No. 8 x 30 self drilling countersunk wood screws (no. 8 x 40 for 25mm **LongSpan**)

*Screws to steel joists*

No. 10 x 40 countersunk self drilling to metal screws

**Fixing**

**LongSpan** should be fixed at 150mm centres on panel ends and at 300mm centres along intermediate joists. A bead of flooring adhesive should be applied to each joist before laying sheets. In wet areas a bead of flooring adhesive should be applied along the top of each tongue and at butt joints as the panels are laid. It is also recommend that panels in wet areas should be sealed to prevent any water ingress. Sheets should be fixed using nails or screws in accordance with the specifications listed. (Please refer to the EWPAA Flooring manual for further information regarding sealing)

**Plantation Grown**

Sourced from plantations managed by the Department of Primary Industries (DPI) in accordance with and subject to a quality environmental management system (EMS), based on and externally certified to the international standard AS/NZS ISO 14001:1996.

*Purchases of forest products processed from timber grown in DPI Forestry managed forests can be assured that sound practices based on objectively evaluated research are implemented to maintain essential ecological processes and ensure the sustainability of the timber production system. Queensland Government: Department of Primary Industries June 2001*

Boral Plywood



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Boral Plywood operates a Chain of Custody Management system complying with **AS4707:2006 Chain of Custody for certified wood and forest products.**

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**Limitations**

All products and relative statements within this document are subject to the applicable panels being installed, removed, stored and handled in accordance with information mentioned, and subject to the governing codes of practice.

Boral Plywood retains the right to change specifications without notice in accordance with its policy of continued product development. 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. Certain species are supplied on the basis of availability.