

# Structural Ply™

IPL's structural ply is the safe and reliable option when it comes to providing bracing and structural support for timber framed buildings. It's built to withstand earthquakes, high winds, and anything else mother nature throws at your building.

### At a glance

- Guaranteed quality via EWPAA Product Certification Scheme
- Site damage resistance (cross laminated construction)
- Bonded with durable 'marine' A bond
- · Easy and light to handle
- Simple installation (gun nail to within 7mm of edges)
- High strength and stiffness in relatively short panels
- Braces building frame during construction period
- Economical and environmentally friendly
- Super EO less than 0.3mg/I AS/NZ Standard formaldehyde emissions
- Use in conjunction with GIB board

#### Structure

Framing that complies with NZS 3604:2011 will meet the requirements of the Building Code. Studs are at a maximum of 600mm centre - dwangs are not necessary for effective bracing but may be used.

IPL Structural Ply is structural plywood manufactured to AS/NZ 2269:2012, and is suitable for design of earthquake and wind bracing for timber framed buildings in accordance with design codes NZS 3603 and AS/NZ 1170. This has been confirmed by EWPAA testing.

#### Durability

As IPL Structural Ply is an integral part of the building structure, it must be durable in each application i.e. have at least 50 years durability rating. In interior dry applications (i.e. 18% moisture content or less) untreated IPL Structural Ply is acceptable for use.

However, in applications where IPL Structural Ply may be subject to wetting, dampness or condensation (basically where the moisture content may exceed 18% for prolonged periods), IPL Structural Ply must be preservative treated to at least H3.2 hazard rating and fixed with non-corrosive fasteners (i.e. stainless steel or silicone bronze).

#### **Exposure during construction**

IPL Structural Ply will withstand rain exposure for at least 3 months. The possible wetting may cause slight buckling of panels but generally, after drying, there is close to full recovery.

## Installation, Sheet Fasteners and Connections

IPL Structural Ply is to be installed and fixed as per the building design. As plywood dimensions can vary with changes in ambient humidity and wetting during construction, it is recommended to allow expansion gaps between adjacent panel edges of at least 2mm.

The minimum fastener requirement in New Zealand is 50mm x 2.8mm dia hot dip galvanised structural clouts.

Treated IPL Structural Ply must be fixed with non corrosive fasteners — a minimum of 50mm x 2.8mm dia stainless steel annular grooved flat head nails or hot dipped galvanised. Refer to GIB HandiBrac® installation instructions for correct installation of galvanised steel angle brackets and bolt types to be used for concrete and timber floors. Please note that IPL Structural Ply is not to be installed in contact with the ground.



#### Face Grade A

Superior clear wood grain with only extremely minor filled splits for high end finishing.

#### Possible Uses:

- High end joinery
- Decorative walls and panelling
- Retail and display

Available thicknesses: 4, 7, 9, 12, 17mm



#### Face Grade C

Wide range of face finishes from the relatively clean finish to filled knots and splits. Faces are sanded smooth and solid but could have minor "rough grain" around areas of disturbed wood grain. Could be used where the natural knotty features are preferred.

#### Possible Uses:

- Membrane substrates
- Hoardings
- Structural and bracing
- Trailer / shed linings
- Flooring

Available thicknesses: 4, 7, 9, 12, 15, 17, 19, 22, 25, 32 mm



#### Face Grade S

Shows attractive wood character finish with minor filled splits and small filled holes that are filled to blend in to give attractive appearance.

#### Possible Uses

- · Interior / Exterior Finishing
- Clear paint finish
- Joinery
- · Multi use where structural and decorative is required

Available thicknesses: 4, 7, 9, 12, 15, 17, 19, 22, 25, 32 mm



#### Face Grade D

Has non-appearance face and can have open defects. Usually used for strength values – splits and knots acceptable.

#### Possible Uses:

- · Roofing substrate
- Unseen formwork
- Packaging
- Structural & Bracing
- Shed linings & hoardings

Available thicknesses: 4, 7, 9, 12, 15, 17, 19, 22, 25, 32 mm

#### IPL Bracing Ply™ Bracing BU Values

	Lining	Min Length (mm)	Wind (BU/m)	Earthquake (BU/m)
IPL 1	7mm Bracing Ply™ one side	400mm	85	95
	7mm Bracing Ply™ one side	600mm	105	105
	7mm Bracing Ply™ one side	1200mm	130	125
IPL 2	7mm Bracing Ply™ both sides	400mm	110	130*
	7mm Bracing Ply™ both sides	600mm	140*	150*

Above P21 testing conducted on behalf of IPL by  $\ensuremath{\mathsf{BRANZ}}$ 

\*Bracing panels must not exceed 120 BU/m when used on timber framed floor as per NZ3604:2011 Section 5.4.2



7mm Structural Ply™ fixed with 50 x 2.8mm flat head nails at 150mm centres around perimeter at no less than 7mm from sheet edge. 300mm centres to intermediate studs

