

Bracing Ply™

IPL Bracing Ply™ is manufactured on the West Coast of New Zealand's South Island to be used to provide resistance to the forces of earthquakes and high wind levels in NZ housing

At a glance

- Proven performance and strength over a long period.
- Use in NZ Building industry in light timber frame buildings as per NZS 3604:2011
- Guaranteed quality via EWPAA product Certification Scheme
- Bonded with durable "marine" A bond glue
- Easy and light to handle
- Simple installation
- Used under traditional building wrap systems
- M High stiffness but with good elasticity qualities to help absorb movement
- A range of bracing widths and types to accommodate small, framed wall sections etc.
- Economical, Eco friendly, timber being a great carbon store
- Super E0 less the 3 parts per million formaldehyde emissions
- Tested as per
 BRANZ P21 test
- Can be used in conjunction with plasterboard systems that specify a DD grade plywood

Structure & Wall Height

Used in conjunction with framing that complies with NZS 3604:2011 will meet the requirements of the New Zealand Building Code. Studs are at a maximum of 600mm centres - dwangs are not necessary for effective bracing but may be required for linings or claddings.

7mm DD IPL Bracing Ply™ is structural plywood manufactured to AS/NZ 2269:2012. It is suitable for design of earthquake and wind bracing for timber framed buildings in accordance with design codes NZS 3604 or NZS 3603 and AS/NZS 1170.

Use section 5 of NZS 3604 when adjusting bracing capacities for walls of varying heights. A part sheet can be installed above a full sheet, in this instance the part sheet must be nailed off using the same pattern as standard full sheet.

Durability

As IPL Bracing 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 Bracing Ply™ is acceptable for use. However, in applications where IPL Bracing Ply™ may be subject to wetting, dampness or condensation (basically where potentially the moisture content

may exceed 18% for prolonged periods) IPL Bracing 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 Bracing 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 and structural values will be retained.

Installation & Fastening

IPL Bracing Ply™ is to be installed and fixed as per the building design, technical literature and safety data sheets. 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 for 7mm IPL Bracing Ply™ is 50mm x 2.8mm dia hot dip galvanised flat head power driven or hand driven nails. In sea spray zone D, stainless steel annular groove or ringshank nails must be used. For bottom plate hold downs refer to GIB HandiBrac® installation instructions for correct installation and bolt types to be used for concrete and timber floors. Ground clearance must be as specified in NZBC Acceptable Solution E2/AS1.

Compliance with Standards

IPL Bracing is manufactured in accordance with AS/NZ 2269. All sheets have IPL construction details/NZ standard/plant number and name on rear of sheets. The Engineered Wood Products Association of Australasia (EWPAA) audits our production processes to ensure we meet the requirements of the product Standard. This third party audited, process based, quality assurance scheme meets the requirements of an ISO Type 5 system for production certificate. The EWPAA is an accredited body to JAS - ANZ under registration No. Z1460695AB.

Product Details

Thickness and Tolerance IPL Bracing Ply™ is 7mm in thickness +/- 7%.

Sheet Size

2400mm x 1200mm. The dimension tolerance for plywood is +/- 1.5mm. There may be some variation from these parameters on CCA treated plywood because during the treatment process the sheet expands and contracts during drying.

Stress Grading

IPL Bracing Ply™ plywood is rated at F8.

Bonding

All IPL construction plywood is bonded with phenol formaldehyde resin (dark red in colour). This results in a permanent bond which after manufacture will not part. This is the same bonding material used in Marine type plywood.

Formaldehyde emissions in IPL plywood are very low and rated as Super EO - less than 0.3mg/I AS/NZS Standard 2098:11.

Sheet Branding

Back of all sheets are marked:

DD The back of all sheets marked with sheet face and grade

IPL Company name

A bond Bond type

F8 Stress grade

AS/NZ 2269 Structural Plywood Standard

914 Engineered Wood Products

Association mill number

7-24-3 Construction code

H3.2 Treatment type

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 BRANZ

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



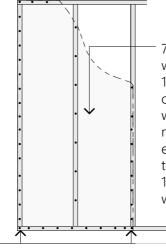
Nails at 150mm centres to top plate and horizontal sheet join over common dwang

Common dwang 90x45mm on edge at sheet join

Nails at 300mm centres to intermediate studs and dwang except in Extra High wind zones where 150mm centres to intermediate studs is required

Nails at 150mm centres to all sides of sheet perimeter.

Finish flush with lower edge of bottom plate



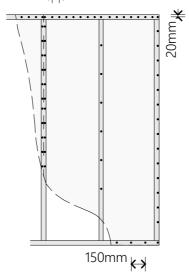
7mm IPL Bracing Ply™ fixed with 50 x 2.8mm nails at 150mm centres to perimeter of each sheet or part sheet within the bracing element at no less than 7mm from sheet edge and at 300mm centres to intermediate studs or 150mm centres in Extra High wind zones.

GIB Handibrac Hold downs installed as per manufacturers details



Top Plate Hold-Downs Connections using IPL Bracing Ply™

75mm**}**★



If this nailing pattern is used, sufficient top plate hold down capacity is achieved which eliminates the requirement for Z-nails to comply with type B fixing or 4.7kN uplift capacity as listed on table 8.18, NZS 3604







