

August 2002

## Technical Advisory Service

### To Whom it May Concern.

The following is a brief summary of BRANZ Test Report ST0386 which was carried out to determine the racking resistance of 12mm Superflake and Superfine particleboard and 12mm Lakepine medium density fibreboard (MDF).

The following paragraphs were chosen so as to provide a general understanding of what needs to be undertaken to achieve the bracing values recorded in the BRANZ Test Report.

A full copy of the report is available upon request.

#### Objective:

To determine the racking resistance of 1.2 metre long by 2.4 metre high panels of 12mm Superfine medium density particle board, 12mm Superflake medium density particleboard and 12mm Lakepine medium density fibreboard.

#### Construction of Test Specimens:

All test specimens were constructed in the same fashion. 90mm by 35mm framing was used throughout each specimen. Three studs were spaced at nominally 600mm centres and there were no noggings included. Each end of each stud was fixed to the top and bottom plates with two 90mm by 3.3mm diameter flat head end driven nails.

The sheathings were fixed to the framing with 40mm by 2.5mm diameter flat head galvanised nails. These were spaced at 150mm centres around the perimeter of the sheathing and at 300mm centres to the central stud. Details of the specimens are presented in Figure 1.

The walls were nailed to the foundation beam through their bottom plates, using pairs of 100 x 4mm flat head nails at nominally 600mm centres (see figure 1).

#### Bracing Test Results:

Bracing values are summarised in Table 1. The evaluation followed the methodology outlined in BRANZ Technical Recommendation No. 10. "Supplement to P21: An evaluation of P21 test results for use with NZS 3604: 1990".

**Table 1. Summary of Panel Bracing Strengths**

Test Series	Length (m)	Sheet orientation	Extra End Fixing	Bracing units per panel		Bracing units per metre		Rated at (mm)
				Wind	Earthquake	Wind	Earthquake	
Superfine	1.2	Vertical	None	123	111	102	92	30
Superflake	1.2	Vertical	None	141	127	117	105	30
Lakepine	1.2	Vertical	None	132	121	110	100	30