

# TimberTest



TimberTest is a world-class Internationally Accredited Laboratory, providing services for both the panels and Engineered Wood Products industries.

The laboratory conducts a wide range of mechanical and emission tests to AS/NZS, Japanese (JIS and JAS), ASTM and European standards. In house methods may be developed for specific requirements.

Research on behalf of clients may also be conducted and recent projects have involved development of new mechanical and formaldehyde emission tests.

In 1997 TimberTest conducted a number of projects to improve the Japanese desiccator formaldehyde emission test and subsequently published a paper on the cause of differences between laboratories.

In 2002 we were awarded a Government research scholarship to travel to UK and USA to produce a position report on formaldehyde emission trends around the world.

## Purpose designed premises

The premises consist of over 400m<sup>2</sup> of workshop, laboratories, meeting room and offices. The complex is five years old and was purpose fitted to provide a clean, air conditioned work environment. The design minimises distance between work areas and is single level providing an efficient workflow. Consideration has been given to preventing contamination by formaldehyde and dust with fresh formaldehyde free air ducted to conditioning and testing areas.



### Central location

TimberTest is situated in New Plymouth, New Zealand.

New Plymouth is serviced by two airlines and is just 40 minutes direct flight from Nelson, Auckland and Wellington. Samples can be sent to TimberTest using overnight courier services from most centres in New Zealand.

### Training, meeting and conference facilities



TimberTest has an air-conditioned conference room seating 40 people. Projection and computer presentation equipment are available. Tea and coffee and catering for lunches can be arranged.

### Workshop

Truck access allows panels and samples of any size to be handled by TimberTest.

The well designed workshop is equipped with bench saws, sanding equipment and drill presses enabling manufacture of a wide range of test samples.



### Sample conditioning room



The conditioning room operates at the standard conditions of 65±3%RH, 20±1°C. Controlled environment cabinets can be operated at a range of other conditions for specific testing requirements.

## TARS - Analysis and reporting

TARS (TimberTest Analysis and Reporting System) is an advanced analysis and reporting software application developed specifically for TimberTest. TARS provides an efficient workflow minimising transcriptions and maximising quality control. It is integrated into all areas of our facility resulting in major cost savings for our clients and ensuring integrity of results.

### Advantages:

- data entry stations in each work area
- reduces data transcriptions to a minimum
- provides an electronic client interface
- presents results in traditional and electronic format
- integrates with client data-bases
- reduces turn-around times
- support for clients with any data handling issues
- efficiency produces cost savings for clients



## Benchmarking

TimberTest has a very comprehensive quality control system. Three monthly international benchmarking is carried out with other reference and production laboratories using the LabCheck system.

Daily quality control is conducted for all testing. Results are plotted automatically using TARS.

## Specialised laboratories

The facility operates five distinct laboratory zones covering a range of wood product tests. Each laboratory is fully equipped with modern test instruments.

### Physical testing



The physical testing laboratory operates a 50kN Universal Testing Machine.

This instrument is a research model programmable via a PC interface for any type of multi-stage or cyclic testing. It is calibrated grade 1 from 2N to 50kN.

A very wide range of tests are conducted in the physical testing laboratory including; Shear, MOR/MOE, Internal Bond, Screw Pull, Hardness, Surface Strength, Cyclic Humidity, Water Absorption, Swell, Density and Moisture Content.

### Chemistry laboratory



The chemistry laboratory has a high quality scanning UV/Vis spectrophotometer, 5 figure and 2 figure analytical balances and controlled temperature water baths.

### Ashing and drying



TimberTest has a high temperature furnace for ashing samples for sand and grit analysis.

There are three laboratory drying ovens for tests such as moisture content.

### Formaldehyde by Japanese methods

The laboratory has six 40-litre chambers for testing formaldehyde emission from glulam, LVL and flooring. TimberTest also has 40 glass desiccators for testing MDF, particle board and plywood by Japanese desiccator standards.



### Formaldehyde by European methods

TimberTest has 8 perforators for testing MDF and Particleboard by EN120 method and 40 flasks for testing by EN1717-3.

## In depth industry knowledge

Stephen Young, the Technical Manager of TimberTest, has been involved with Forest Research and laboratory management for over 25 years. He worked for 10 years at Forest Research and PAPRO and in these positions obtained a wide range of experience in forest research and laboratory quality management.

Stephen developed and managed PAPRO Testing Services for Forest Research and has also commissioned onshore and offshore oil testing laboratories.

As a member of TM005 he has been actively involved with standards development for composite products for the AS/NZS standards. During the Japan, Australia and New Zealand Standards (JANS) harmonisation process he researched and wrote a new version of the formaldehyde emission method.

Stephen is recognised as a world expert in his field and regularly presents seminars on wood products testing and laboratory quality management.

### Memberships:

- Australasian Pulp and Paper Industry Technical Association (Appita)
- AS/NZS Reconstituted Timber Panel Products Committee (TM005)
- Forest Industries Engineering Association (FIEA)
- New Zealand Institute of Foresters (NZIF)

### Data processing

Bruce Forbes is the Data Processing Manager and is responsible for developing the TimberTest analysis and reporting system (TARS). Bruce has a background in systems analysis and programming. Bruce started his working career with Forest Research and after many years programming overseas for a wide range of international companies returned to New Zealand to work with a team of Forest Research programmers on the Atlas forest management system.

### Technical expertise

Graeme Radford manages the physical testing laboratory and has been with the company for 6 years.

Monty Ammundsen is the senior formaldehyde emission technician. Monty has both a technical degree and qualifications in management.

TimberTest employs permanent part-time staff from the local technical-science degree program. The company has a policy of financially supporting these young people in their studies. Past TimberTest trainees are now working in the wood products industry and others are completing a range of qualifications including chemistry, science, genetics and management degrees.

We have a policy of continuous training and upskilling of staff. Staff attend conferences and training courses to ensure they are kept up to date with latest industry trends.



**Stephen Young**  
Technical Manager



**Bruce Forbes**  
Data Processing Manager



**Graeme Radford**  
Laboratory Manager



**Monty Ammundsen**  
Technician

### TimberTest.com

Our web site is regularly updated with industry news, calendar of events, research and links.

Visit: [www.timbertest.com](http://www.timbertest.com)



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# Wood Product Testing



**TimberTest**

## Internationally Accredited Laboratory

**Plywood**

**Glulam**

**Particle board**

**MDF**

**LVL**