

## Sustainability

# **FACT SHEET**

#### **Overview**

Plantation forests cover 1.8 million hectares of New Zealand land area. They provide a healthy oxygen-filled environment for many leisure activities.

Because they are harvested on a renewable basis they also provide vast quantities; some 20 million cubic metres of high quality material each year.

Instead of sending this material overseas as low value logs, TimberLab is committed to producing value-added timber solutions in the way of engineered timber structures. These crafted timber projects from TimberLab have shown NZ to be an international leader in providing durable, sustainable structures all over the world.

# New Zealand's only renewable construction material

By converting logs into attractive and efficient major structural elements, TimberLab is reducing the dependence on non-renewable resources that produce materials such as steel and concrete





## A Valuable Resource Made Even More Valuable



#### **Living Building Challenge**

Contributing to the achievement of the high standards of the Living Building Challenge, TimberLab's FSC Certified Glulam products form the main structural system for this first in New Zealand.

FSC Certified - TimberLab Solutions Ltd holds Chain of Custody Certification IN-2013-1. FSC License Code FSC-C084824

This gives assurance that material produced by TimberLab is sourced form sustainably-managed forests.

#### **The Environmental Choice**

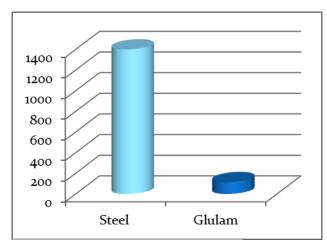
In a world that is increasingly concerned about caring for the environment, designing in Engineered Timber provides a responsible option. In comparison to other construction materials, timber offers a number of environmental benefits

## **Energy Efficient.**

#### Lower embodied energy.

The amount of energy required to produce construction materials is an important factor in evaluating an energy efficient building.

This Graph shows that a steel beam takes twelve times more energy to produce compared to a Glulam beam, carrying an equivalent load.



Steel= 1400MJ Glulam= 115MJ

### **Carbon Storage**

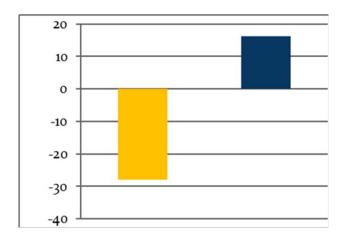
There is wide spread concern that emissions of carbon have the potential to have a significant harmful effect on our atmosphere.

Timber is a natural storer of carbon; when harvested this carbon is permanently fixed into the timber. Replanting means more storage sources for carbon and generation of oxygen.

Processing timber on a sustainable basis therefore, improves both the production of oxygen and sequestration of carbon.

By designing in Glulam we are actually assisting the environment.

This graph shows Glulam **stores** 16.2kg of carbon while equivalent steel **emits** 28kg.



Steel Emits 28Kg / Glulam Stores 16.2kg