Technical Facts

solidwood™
Build Smart. Build Natural.

Solid Timber -Earthquake Safe

Simple

Solid wood construction is backed by 50 years of proven performance in New Zealand and a wealth of research to make it better than ever.

Solid wood has proven to be one of the safest building systems in an earthquake.

Science

Elasticity and Energy Absorption

The elastic and energy absorption properties of solid wood construction make it the ideal system to use in earthquake regions. The solid wood wall planks are designed to move slightly and then return to their original position once the shaking stops. Gypsum board braced walls (timber or steel frame) cannot take the same movement without showing signs of damage. Concrete can crack under these conditions.

History

Earthquakes in New Zealand have caused major damage to masonry buildings and even light timber framed buildings have shown damage, while solid timber buildings have emerged unscathed and required NO repair.

Safety

Solid wood buildings can absorb severe shaking with a very low risk of injury or structural damage. Even in areas of liquefaction, provided the house was on a suspended timber floor, the houses remained safe and serviceable. By contrast, 40,000 fatalities were recorded in the 1999 Turkish earthquake, mainly in masonry and concrete buildings.

Research

Research is continuing to further improve the performance of solid wood buildings in earthquakes.