



## Solid Timber - Fire Safe

### Simple

Solid Timber is an Insulator and a poor conductor of heat and electricity. Wood is a much better insulator than steel, concrete and glass.

**DESIGN - Consult your fire design specialist to meet particular fire safety requirements.**

### Science

#### Fire

Solid wood resists fire. It burns at a slow rate, and doesn't melt and suddenly collapse as steel can when heated. It can also often be sanded and re-used after fire.

#### Resistance

When wood is exposed to high temperatures it will burn and decompose to provide an insulating surface layer of char that retards further degradation of the wood. The rate of char is initially fast but as the depth of char increases, the rate of char slows because of the increasing insulation provided.

#### Strength

Although wood is a combustible material, when it burns, a surface layer of char is created which helps to protect and maintain the strength and structural integrity of the remaining unburned wood beneath. Engineered pine solid wood walls have a char rate of 0.6mm per minute.

#### Fact!

Most building fires are started by heat sources that ignite materials such as furnishings and items that are introduced into the building and it is these materials that emit toxic fumes that most often threaten life and limb. The building structure is usually not the first material ignited.