



Timber products for home repairs and building

TIMBER PRODUCTS

This is the third Bush Tech in a short series to help people doing small jobs around the home. This Bush Tech discusses using timber, which is one of the most common materials for home use.

Timbers can be broadly divided into solid or natural timber and sheet products. Sheet products are made of natural timber which has been processed into smaller pieces, which are then recombined and glued together in various ways — common examples include plywood and medium density fibreboard (m.d.f.) or chipboard.

Each of these timber types has particular advantages and disadvantages. Natural timber is processed to make best use of that particular timber's properties. Hardwoods (trees producing timber with a visible grain such as eucalypts) usually grow slowly into large sizes. As the name suggests, hardwood timber is often stronger than softwood (timber without a visible grain), is typically sawn into planks for structural or decorative use, and is more expensive. Softwoods (such as plantation pine) grow more rapidly and are more suitable for general use — for example house framing and casual furniture.

Hardwood or softwood timber of lesser quality may be milled to produce the raw material for various sheet products.

Selecting a size and shape of timber to suit a home job is a relatively straightforward exercise, although careful measurement is important. When choosing the actual timber type it is important to ask:

- Will the timber be structural (need to carry heavy loads)?
- Will the timber be exposed to water, heat, bugs or rot?



STRUCTURAL TIMBER

Timber products are graded and marked by stress or strength ratings (F5, F8 etc. The larger the F number the stronger the timber.) In consultation with your timber supplier, choose a rating that is strong enough for the structural load that the piece must carry.

Timber types are also graded according to their durability, that is, their ability to cope with environmental challenges. (Class 1, Class 2 etc.) Class 1 is the most durable and includes timbers such as tallow wood. Class 4 is the least durable and includes most of the pine and softwood species. Plantation pine, for example, is often sold in natural untreated form for general indoor use, but for outdoor use and in locations prone to termite or fungal attack it is available in various marked treated pine grades, which usually have a green or blue appearance. Treated pine may be used in ground, and round poles of this type are typically used for fence and awning posts.

PLYWOOD

Plywood grades range from marine ply (the most durable in wet environments and the most expensive), through structural ply to common or interior ply.

Watch Out! Plywood often has a face-side or best-side which is presented as the most visible side when fitted in place. Where both sides will be visible, check and select from the available stock in the store.



Top: A sheet of Plywood showing the face-side.
Above: A stack of plywood showing the layers (plies) of wood glued together.

FIBREBOARD

There is a wide range of fibreboard sheet products, most of which are designed for interior use. The most common is m.d.f., which may be 'raw', or coated with a paint or a hard plastic layer such as melamine for use in home furniture and fittings or impregnated with water-repellent additives (often green or blue) for use in wet areas. Even these wet area fibreboard products are not generally designed for outside use, as they ultimately break down with continuous exposure to the weather. Masonite is another common fibreboard. It is usually sold in relatively thin sheets. It is dense, but only suitable for interior use.



A stack of fibreboard sheets.

TIMBER STORAGE

Timber products naturally absorb moisture from cool, humid air, and release it in hotter, drier conditions. Drying occurs rapidly when the timber is first sawn, but some shrinking and swelling continues throughout the life of the timber. Green (raw) timber will split, twist or warp if dried or seasoned too quickly, so it must be carefully stored during this early period to allow the stresses in the wood fibres to release gradually.



Watch Out! While this seasoning process is largely the responsibility of the timber supplier, planks may often 'move' after being transported from a cool, moist growing area for sale in a hot dry location. Check planks carefully for straightness before you buy.

ALLOWING FOR TIMBER MOVEMENT IN CONSTRUCTION

Once properly seasoned, solid timber generally retains its straightness, but continues to shrink and swell a little each summer and winter, particularly if it is not painted. Almost all of this movement is across the grain of the timber, that is across the width, not the length. This means that anywhere timber planks are being laid side by side (such as on a deck), a gap must be allowed so that each plank has room to expand. Seek advice from your timber supplier as movement varies between types of timber.

	ADVANTAGES	DISADVANTAGES
SOLID/ NATURAL TIMBER	Large sizes and lengths for structural work. Attractive for exposed work.	Expands and shrinks across the grain, so may be unstable in width. The growing part (the lighter coloured sapwood) may be prone to borer (bug) attack or decay.
SHEET PRODUCTS	Stable in length and width. Useful for cladding, floors.	Limited options for structural use.

FURTHER INFORMATION
www.timber.net.au
www.woodsolutions.com.au