

Timber for garden projects

Wood is a natural product that can be used in a huge variety of ways to immediately enhance any garden. It is important to choose the right timber for the job so that it will last longer. Timber garden products can last for years, but a little extra care will help to maximize their service life – so giving some thought to their design, fixings and after care is also important.

The performance of naturally rot-resistant hardwoods can be matched by low-cost preservative-treated softwoods. But not all preservative-treated timber is suitable for use in the garden, where it will have to cope with all sorts of weather conditions.

Changes in regulations governing the use of some wood preservatives have affected what can be used and where; and proper disposal of preservative-treated timber must also be considered. Choosing wood that has an FSC or PEFC (Forest Stewardship Council) or PEFC (Programme for the Endorsement of Forest Certification) logo on the label allows you to tell your customers that it is from sustainably managed forests.

Treated or untreated?

Timber in gardens is fully exposed to the weather, so it normally needs to be treated with a wood preservative to ensure it lasts longer. This is true for most common uses of timber in the garden, especially for parts that are in direct contact with, or embedded in, the ground.

Pressure-impregnation treatment is best for new timber components. Nearly all timber that is sold by timber merchants and builders' merchants for use in the garden has already been pressure-impregnated with wood preservative. Timber that has been pressure-treated is a distinctly different colour to untreated wood – it is usually coloured green or mid-brown, so you should choose this timber for use in the garden.



Photo: Richard Burbidge

Sustainable timber

Timber is the most sustainable building product available. It is naturally renewable - over 97% of softwood timber used in the UK comes from Europe, where the forest area is increasing by the equivalent of 90 football pitches every hour of the day and night.*

For reassurance for softwoods and hardwoods look for certification labels like FSC (Forest Stewardship Council) or PEFC (Programme for the Endorsement of Forest Certification).

Always ask your supplier about their responsible purchasing policies.

*IIED & ECCM, Using Wood to Mitigate Climate Change, 2004 and UNECE-FAO, State of the Europe's Forests, 2011.



This information sheet provides general advice only and is not specific to the requirements of a particular building project. It is the builder's responsibility to check compliance with Building Regulations and standards.



Treated Timber

Photo: Beaumont Forest

Cutting a pre-treated timber to length or notching it can easily expose untreated timber. Untreated/cut surfaces need a generous coat or two of brush-applied preservative.

When handling pre-treated timber, wear gloves to prevent splinters and abrasions.



Cut ends need to be coated with preservative

People, pets and plants

Modern pressure-impregnated wood preservatives and most water-based proprietary products won't usually affect people or pets unless eaten. Climbing plants will happily grow up pressure-treated timber pergolas or trellises. Solvent-based wood preservatives and solvent-based coatings such as paints or stains are also available to extend the life of weathered sheds or fence panels or simply improve their appearance. Some of these products could potentially be harmful to people, pets and plants, so take care to follow the manufacturer's instructions.

Timber structures and buildings in gardens

There are a huge variety of timber structures for gardens, including sheds, kennels, decks and tree houses. Some need planning permission (see below). Many are sold in pre-formed panels that can simply be nailed together. Other structures, such as summer houses or log cabins, may need screws or coach bolts to fix them together. The timber is usually pre-treated, so normally no additional preservative treatments are needed, but it is important to erect these buildings correctly to ensure that they last.

- Support floors off the ground on treated timbers (which may be supplied with the building) on a concrete or paving-slab base.
- Take care not to damage roofing felts, and ensure that roof coverings such as shingles or slates are correctly fixed; any leaks could result in rot, which can significantly reduce the service life of the building.

Planning permission

Check planning rules. Normally, small structures do not require planning permission providing the location is at least 1m from your boundary, but structures should be under 30 square metres (under 15 square metres and without sleeping accommodation to comply with Building Regulations), be under 2.5m at eaves' height and take up no more than 50% of the garden. Further restrictions apply in conservation areas, and any electrical connections must comply with safety standards.

Note that all verandas, balconies and any other platforms (including tree houses/playhouses) require planning permission, with the exception of decking up to 300mm above ground level.

Fixings

To make sure that fixings do not rust, you should use external grades, which are usually hot-dipped galvanized or stainless steel. Further advice on fixings is available in the 'Mechanical fixings for wood' *Choose and Use* information sheet in this series.

Fencing

Prefabricated timber fence panels are widely available and are almost always supplied pre-treated. This will protect the wood, and no other treatments are needed. However, a good way to extend the service life of the fence panels is to support them off the ground using pre-treated gravel boards. If the gravel boards rot in the future, they can be easily replaced at low cost, instead of

having to buy new fence panels. Gravel boards can also be used to take up unevenness in ground levels, so the prefabricated fence panels can simply be slotted into place.

Pre-treated fence posts are available in a range of lengths and sizes, either in the round, or as square sections. The section size must be a minimum of 75mm x 75mm. For areas exposed to high winds, or for high fences, larger section-size fence posts are often needed.

It is also important to choose fence posts of the right length. For prefabricated timber fence panels, this is based on the height of the panel:

Guidance on fence post length for prefabricated timber fence panels			
Prefabricated timber fence panel height	Minimum distance embedded into ground	Minimum post length needed (without gravel boards)	Minimum post length needed (with 150mm gravel boards)
1,400mm or less	500mm	Panel height + 500mm	Panel height + 650mm
1,400mm to 2,000mm	600mm	Panel height + 600mm	Panel height + 750mm

Fence posts can be concreted into the ground or fitted into metal post-spikes or into brackets bolted to concrete footings. It is good practice to protect the end-grain from wetting, so the tops of the posts should be capped or sloped to shed rainwater.



Photo: Beaumont Forest

Balustrades

Pre-shaped and pre-drilled balustrades for garden decking, steps or small bridges are available with timber or metal balusters. Alternatively, balustrades can be made on-site from pre-treated wooden spindles, rails and posts. Vertical balusters (eg the spindles) should be spaced a maximum of 100mm apart and rails should be at least 900mm high, or 1,100mm for a deck that is more than 600mm above ground level.

Play equipment

For play equipment in the garden, follow the manufacturer's instructions carefully when installing and avoid sharp edges, rough surfaces and protruding fixings, adding caps to all ends. Check that the equipment packaging states it is manufactured to meet the requirements of *BS EN 71*, and that it is CE marked. Consider the safety of the ground surface, the suitability of the location and whether the equipment requires securing (eg in concrete). Paints and coatings must be non-toxic. Ideally you should seek specialist advice before you design or build garden play equipment, as you will need to observe the relevant safety standards. For example, you will need to avoid small gaps that could become finger-traps or head-traps for children.

Sleepers

Pressure-treated timber sleepers have many potential uses in gardens, including raised beds, steps or pond structures. New sleepers are usually treated with modern preservatives, because creosote, which was used historically to treat railway sleepers or fences, is no longer allowed for garden use. Used creosote-treated timbers (typically old railway sleepers) are allowed, but many restrictions apply. For guidance on the use or disposal of used creosote-treated timber, contact the Wood Protection Association (see *Further information and advice*). All pre-treated timbers should be isolated from ponds using appropriate pond liners.

Weathering and maintenance

Uncoated timber in the garden will weather to a silvery-grey colour within about 18 months to two years. If the wood is required to stay a particular colour, it will need to be stained or painted every few years. Many brush- or spray-applied wood treatments are available, and these can also help to extend the life of existing garden timbers.

Disposal

Offcuts from pre-treated timber should not be burned on a bonfire or barbecue. They should be disposed of in a landfill site, or burned in commercial or industrial incinerators or boilers in accordance with national regulations.



Photo: Beaumont Forest

Choose and Use is a series of information sheets for builders produced by TRADA, The Timber Research and Development Association.

They offer up-to-date advice on how to select the right timber and timber products for different applications.

You can often save time and money by choosing the correct timber material or timber products as well as ensuring you comply with current Building Regulations and Building Codes. For more information about specific products visit www.trada.co.uk or contact your local supplier.

Further information and advice

Wood Protection Association

www.wood-protection.org

+44 (0)1977 558274

UK planning permission for outbuildings

www.planningportal.gov.uk/permission/commonprojects/outbuildings/miniguide

British Standards

BS 1722-11: 2006 *Fences. Specification for prefabricated wood panel fences*, BSI

BS EN 71-1: 2011 *Safety of toys. Mechanical and physical properties*, BSI

Further advice on treated timber products can be obtained from your local supplier or merchant. Ask for manufacturers' sales or technical literature. Check on the manufacturers' websites for further technical information.

Other *Choose and Use* factsheets are available in this series, including 'Mechanical fixings for wood', 'Sourcing sustainable timber', 'Timber decking', 'Treated timber' and 'External timber maintenance'.