



**TIMBER
DEVELOPMENT
UK**

Build

B.60.01-03.01

Date Published

1 November 2024

Document Type

Timber Knowledge Sheet

Category

Build

Audience

Designer | Installer

Theme

Applications

Author

Kirsty Connell-Skinner
for TDUK

Cover image

Luke O'Donovan

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Timber Garden Structures: Decking

Ideal for creating practical outdoor spaces, timber decking provides an excellent garden landscaping option when it is correctly specified, designed, installed, and maintained.



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1 October 2024	Timber Knowledge Sheet	Build	Designer Installer	Applications	Kirsty Connell-Skinner for TDUK

Timber Garden Structures: Decking

For creating natural, durable, and sustainable outdoor spaces, timber decking is a popular choice in public and private gardens, and offers a smart solution to sloping garden sites through effective transitions between different levels.

Planning Permission

Although outdoor decks are considered permitted development that do not require local council planning consent, there are specific instances where the rules can vary.

In England and Wales, the following decking scenarios require planning permission:

- Where the deck platform is more than 30cm above the ground.
- Where together with other structures such as extensions and outbuildings, the outdoor deck or platform cover more than 50% of the garden area

In certain areas, additional limitations apply:

- In National Parks, the Broads, Areas of Outstanding Natural Beauty and World Heritage Sites the maximum area to be covered more than 20 metres from a house is limited to 10 square metres.
- On Article 2(3) designated land* no decking or platform is permitted either side of the house.

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- No decking or platform is permitted within the curtilage of a listed building, no decking or platform is permitted.

If the decking forms part of a larger piece of work (e.g. an extension with additional decking), then there may be different/further rules which apply to the entire development. These could mean planning permission or prior approval is required.

Decking Design

Timber decking can be either contemporary or traditional in design, but it is important to consider the following factors at design stage:

- **Location**

Is the site flat or sloping? If the latter, the decking can change level to accommodate for this. Ideally locate a deck where it receives some light but is sheltered from the wind. Avoiding heavy foliage overhead can reduce maintenance and the need for preventative anti-slip measures. Also consider whether the deck is private or can be seen from neighbouring properties.

- **Purpose and Users**

For safety, all but the most basic low-level deck should include a decking balustrade; when used



IMAGE: Extensive decking at the John Hope Gateway, Royal Botanic Garden Edinburgh

as a safety barrier, for example if children will play on the deck, it must conform to the Building Regulations for England and Wales or the Technical Standards for Scotland.

If a heavy structure like a hot tub is to be added, make sure there is sufficient structural specification to bear its weight.

Ramps can also improve the accessibility of decking. Anti-slip measures should be used where footfall is high or an increased incidence of falling leaves or debris.

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Decking Specification

A service life of at least 15 years is considered the minimum standard for quality timber decking and materials should be selected to meet the desired service life expectation. For raised decks and balconies built on new homes, the National House Building Council (NHBC) requires a 60-year service life.

- **Deck Boards**

Timber deck boards are typically supplied in long lengths, from 1.8m to 6.0m and are rectangular in section, ranging from 19-45mm thick and 70-145mm wide. In the UK these are usually either smooth (plain) or grooved.



Smooth (plain)
decking board

Grooved
decking board

IMAGE: Decking board types, smooth and grooved

Naturally durable deck boards should be rated by **BS EN 335 Durability of wood and wood-based products** as Moderately Durable (durability class 3) at least for above ground use and Durable (at least durability class 2) where boards are located very close to or in contact with the ground.

Pressure treated softwood deck boards should be treated to at least Use Class 3 (outdoor above ground use) with a 15-year desired service life specification.

- **Substructure**

Decking substructure is usually constructed from pressure treated softwood. The TDCA recommends that deck joists, posts and beams, or any timbers providing exterior structural support should be pressure treated with a timber preservative to a Use Class 4 specification - regardless of whether they are in ground contact or not. This is to ensure the enhanced durability and safety of the deck substructure.

The grade (strength class) of structural timber must be sufficient to cope with loads placed upon it during its service life. Softwood with a C16 strength class rating is the minimum standard for decks above 600mm in height and is a requirement of building regulations for such raised level structures. For decks below 600mm in height the use of C16 timber is recommended.

Higher strength classes, typically C18 and C24, should be specified where smaller component sections, longer spans, or commercial deck performance design considerations are required. C24 is recommended for decks that will carry heavy loads and can sometimes be useful for larger decks.

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Decking Installation

The Timber Development UK **Timber Decking Handbook** provides definitive guidance on installing timber decking. Visit www.timberdevelopment.uk to find out more.

- **Moisture Content**

To minimise the effects of shrinkage, timber decking should be installed as close as possible to the equilibrium moisture content (mc) of the site.

In the UK, outdoor timber mc typically varies from around 19% in winter to 12% in summer. For best results always install timber decking with a mc lower than 20%.

- **Deck Board Spacing**

A fundamental aspect of deck installation is ensuring water drainage from the surface.

Leaving adequate space between deck boards supports this and accommodates the expansion and contraction of timber as its mc varies.

- For adjacent deck boards leave a gap of 5-8mm.
- Board ends can be butted together.
- Leave 5mm where a board end abuts a post.
- Where boards abut a building incorporate a 10mm gap.

- **Metal Fixings**

All metal fixings should be made from corrosion-resistant materials, such as stainless steel, hot dipped galvanised, or other specialist coating.

Deck board fixings should be at least two to three times the thickness of the board being fixed.

Decking Finishes and Maintenance

Many decking timbers can be left uncoated - and will weather to varying shades of silver and grey.

Applying a specialist coating of oil, stains, or paints can add colour or bring out the beauty of the timber deck but can also help to:

- Counteract the weathering process
- Provide solutions for protecting decks from excessive wear and make them easier to clean
- Provide anti-slip protection.

Pre-coloured and preservative-treated timber decking materials are increasingly available, but any touch-up or future maintenance needs should be checked.

The deck surface should be kept clean by regular brushing, and thoroughly cleaned at least once a year using a mild soap or proprietary solution.

The Timber Decking and Cladding Association (TDCA)

An independent, not-for-profit organisation, the TDCA is the UK advisory body for the timber decking and timber cladding industries.

As a reliable and authoritative source of expert decking opinion, it is recommended to consult with the TDCA for all timber decking queries beyond this basic introduction. Find out more at www.tdca.org.uk