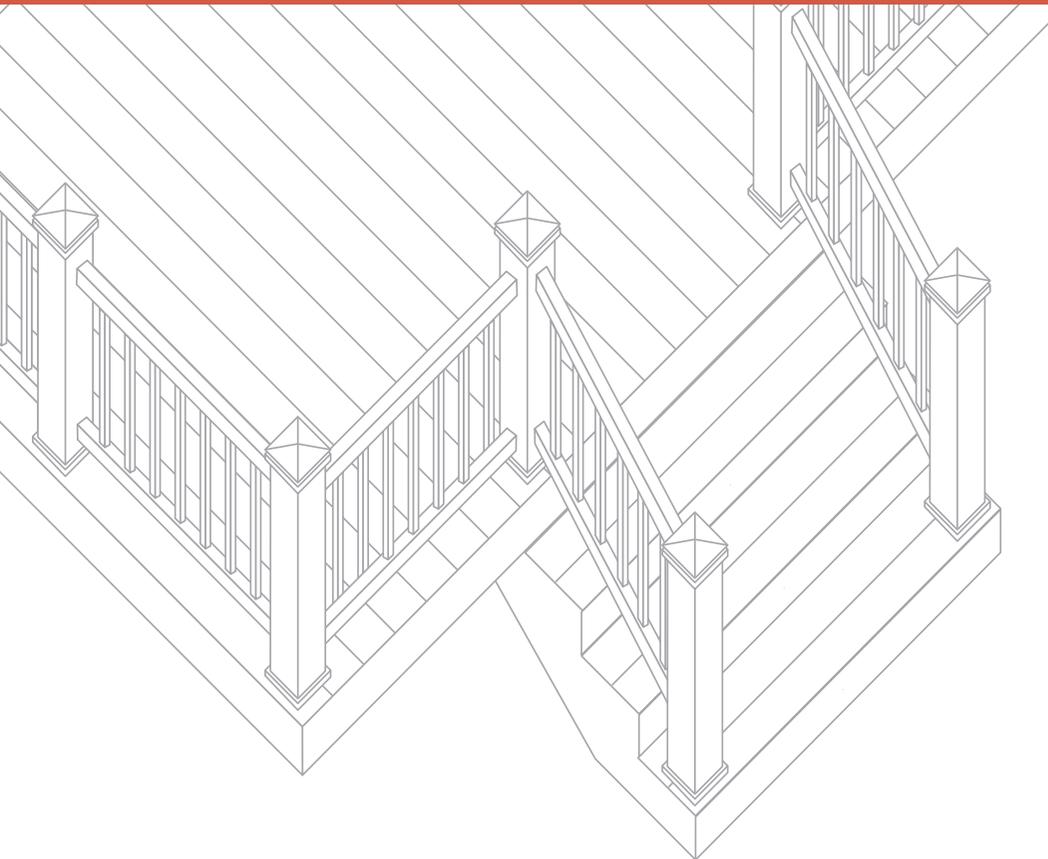


TimberTech Composite Decking

Installation & Maintenance



Installing TimberTech Decking

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Dear Valued Customer...

TimberTech would like to thank you for your interest in our decking products. Our aim is to provide excellent customer service with unrivalled product quality.

TimberTech focuses on quality, innovation and brand in all that we do. With an assortment of boards, industry leading railing systems and numerous accessories, building beautiful decks has never been easier.

TimberTech is committed to providing builders and professional deck installers with exciting new products as well as providing supporting material for the professional to help differentiate themselves in the marketplace.

TimberTech decking boards are available nationally in the UK and are backed by a 25/30 year limited residential warranty (10 year commercial).

TimberTech has compiled this Maintenance Guide to provide a thorough resource for technical information and installation instructions for our deck boards and railing systems.

To receive further information on other TimberTech products visit www.timbertechuk.co.uk or call 029 2080 3756.

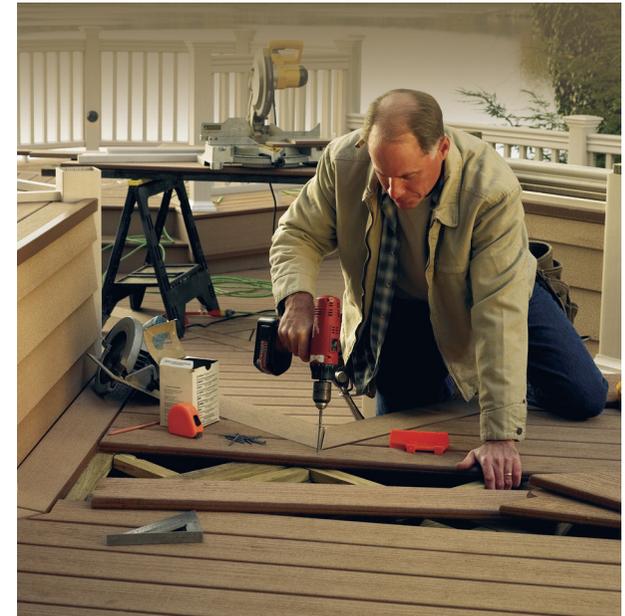
TimberTech covers the alternative decking market

With a variety of product offerings TimberTech covers all decking possibilities. With deck boards that offer fastening choices and revolutionary colour choices, you can give your TimberTech deck the truly professional finished feel that you require.

This installation guide will direct you through the process of installing TimberTech deck boards. Most installers will find this process similar to the installation of a wood deck. However, there may be areas that differ from what you are used to.

These installation methods are recommended by TimberTech, but they may not cover every installation scenario. Since each installation is unique in its performance requirements, the ultimate installation method used is the sole responsibility of the installer.

TimberTech recommends that all designs be reviewed by a licensed architect, engineer or local building official before installation. Make sure your plans meet building regulations before you begin the installation.



Do you need help with your installation?

TimberTech strives to provide the very best service to our customers. We have an excellent customer service team that is here to help you with your installation questions.

If you need help you can call customer services at 029 2080 3756 or visit www.timbertechuk.co.uk

Tools Required

TimberTech boards can be installed with a minimum number of readily available tools. However, many other tools are available that can provide even greater efficiency and ease of installation.

All tools should be used per applicable manufacturers' instructions. Some of the basic tool requirements:

- Cordless Drill
- Carpenter Square
- Chalk Line
- Spacing Tools
- Tape Measure
- Circular Saw
- Jig Saw
- Safety Glasses
- Spirit Level

Use the jigsaw to cut around obstructions such as posts. A power mitre saw can also be very helpful during installation. When cutting boards with a hand held circular saw it is recommended that a thin kerf 40-tooth alternate top bevel finish blade be used to achieve the cleanest cuts. For a power mitre or compound power mitre saw a fine finish alternate top bevel blade is also recommended.

When working with TimberTech products be sure to wear proper clothing and safety equipment. Safety glasses should be used during the entire installation process.



Stop! Read before you start!

Directional Graining – TimberTech boards have a grained texture which is directional. Each board has a shallow rib running down only 1 edge (do not confuse with the deeper grooves found on both edges of the grooved deckboard profile) - this ribbed edge should be kept consistently on the same side when laying the boards; it does not matter whether its on the left or right hand side. See individual board installation instructions.

Static Electricity – Static build-up is a natural occurring phenomenon and is normal in many polymer products. It could occur with TimberTech products under the certain environmental conditions.

Cantilevering – TimberTech boards can be cantilevered a maximum of 25mm.

Colour and Grain Patterns – Our wood-polymer composite deck boards are designed to mimic the look of real wood, and like real wood, there will be a slight difference in colour and grain pattern from board to board. This is intentional and part of the manufacturing process, giving TimberTech wood-polymer composite decking the most realistic and wood-like appearance possible. This variation is purely aesthetic and does not or will not affect the performance of the product. You can be sure that TimberTech deck boards are designed and manufactured to high industry tolerances.

Our deck boards are designed to naturally weather over time. Most of the weathering process will be complete within the first year of the deck's life.

Safety – TimberTech offers products that meet with the American Disabilities Act standards for slip-resistant walking surfaces, and unlike traditional wood, TimberTech is splinter-free. See timbertechuk.co.uk for more information.

Note – TimberTech is NOT intended for use as columns, support posts, beams, joists or other primary load-bearing members. TimberTech must be supported by a compliant substructure.

Calculating Material Requirements

To determine how much TimberTech decking material you will need, start by calculating the area of your deck surface by multiplying length by width. Once you know this number, divide it by the numbers provided below for 3.6m and 4.8m boards.

When calculating the amount of decking you will need, it is recommended that you add roughly 10% to the total for a scrap factor.

Once you know the m² area, divide it by 0.51 for 3.6m boards and 0.67 for 4.8m boards.

Example: Length x Width = Total m²

M² ÷ by 0.51(3.6m) or 0.67 (4.8m) =
Boards Needed (round the number up)

Boards Needed + 10% (Scrap Factor) = Final Number
of Boards Needed (round the number up)

If you are attaching the boards at an angle (diagonal to joists), you will likely generate more scrap from cutting, so more material will most likely be required. A drawing to scale may help you determine how much more board material will be required or consult TimberTech.

Working With TimberTech Boards

Expansion and Contraction

TimberTech deck boards have minimal expansion and contraction with changes in temperature. Expansion and contraction are most significant where extreme temperature changes occur. Fastening the deck boards according to installation instructions minimizes the expansion and contraction.

Gapping Requirements for all TimberTech Boards

- Gap boards 3mm to 5mm side to side.
- Follow these butt joint gapping guidelines for all TimberTech boards:

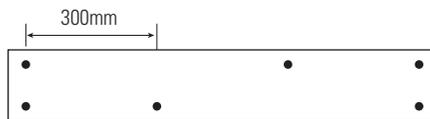
Below -1° celcius (30° F)	5mm Gap
-1° to 23° celcius (30° F to 74° F)	3mm Gap
Above 24° celcius (75° F)	1mm Gap

- Allow 5mm minimum gap where the boards meet an adjoining structure or post.

Fastening Methods

TOPLoc™ Fascia Screws

- Using the TOPLoc™ Fascia Bit, pre-drill 50mm from the top and bottom alternating a maximum of 300mm. It is recommended that screws are evenly spaced for the best look.



- Set board in place being sure to follow proper gapping requirements.
- Drive TOPLoc™ fascia screws into the surface so that the screw head is flush with the surface. Do not completely torque down screw; screw should serve as a hanging mechanism to allow for expansion and contraction. This will help to prevent any undesired consequences to movement.
- Continue fastening in pattern described being sure to work left to right or right to left.

TimberTech Solid Boards (ungrooved edge)

Pre-drilling is required when within 38mm of the ends of the board and in cold weather. The preferred fasteners are high-quality coated TOPLoc™ deck screws. Fasteners should be installed perpendicular to the deck and driven flush; do not overdrive.

TimberTech recommend 63mm TOPLoc™ high quality coated deck screws (We recommend always pre-drilling a 4mm pilot hole).

If nails are to be used, use stainless steel or high-quality coated nails. Small headed ring shank or casing nails provide minimal fastener exposure.

Extreme caution must be used. Do not overdrive the nail – it could cause the boards to split – especially at the ends. Nails should be driven so that the head is flush with the board surface.

Nails offer time savings but may loosen over time with the expansion and contraction of the entire deck system (joist and boarding). This may cause the nails to pop up from the deck surface, which will require re-setting the nails. Protruding nail heads are one source of the most common injury to bare feet on decks.

Fastener Mushrooming: The use of composite deck screws can reduce this effect. If mushrooming occurs, lightly tap the material back into the hole of all boards, except EasyClean Terrain, EasyClean Terrain+, EasyClean Tropical and EasyClean Legacy. TimberTech recommend drilling a 4mm pilot hole to avoid ‘mushrooming’ of the material around the screw head. This provides a much neater finish.

TimberTech Grooved Boards

Use TimberTech CONCEALoc® HiddenFasteners. Follow the directions on the CONCEALoc® box.

Contact TimberTech on 029 2080 3756 for guidance if fixing directly into steel.

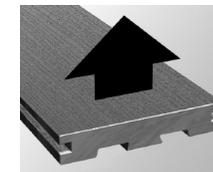
Fasteners Required Per Square Metre (face fix)

Solid Board/Face fix

EasyClean Edge	40
EasyClean Edge+	40
EasyClean Terrain+	40
EasyClean Reserve	40

- See individual board installation instructions for the recommended fasteners.
- Refer to fastener manufacturer’s instructions for installation.
- See instructions for CONCEALoc® Hidden Fasteners on page 10 for required number of fasteners required if using the hidden fastening system with grooved boards.

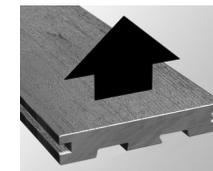
EasyClean Edge
Grain side up



EasyClean Edge+
Woodgrain side up



EasyClean Terrain+
Grain side up



EasyClean Reserve
Grain side up



Fastening Guidelines for Solid Boards

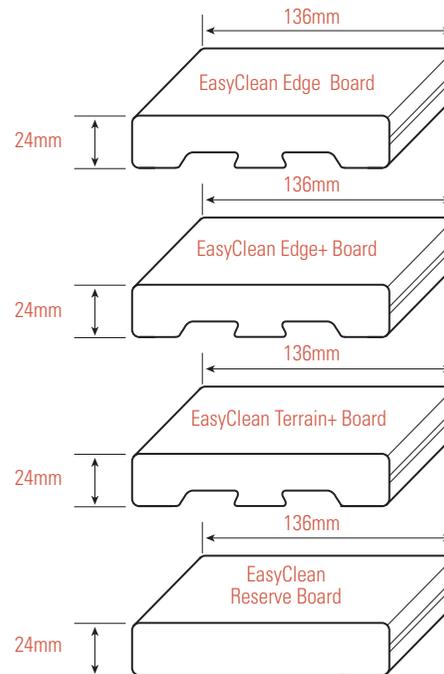
- Pre-drilling is required when within 38mm of the ends of the board and in cold weather.
- When applying screws, a raised area of material or mushroom effect may form around the head of the screw. This material may be tapped back into the hole of all boards, except the EasyClean board range. TimberTech recommend drilling a 4mm pilot hole to avoid ‘mushrooming’ of the material around the screw head. This provides a much neater finish.
- Do not use glue or caulk to fasten TimberTech boards or to seal the joint between two boards and any other surface. This will inhibit the natural expansion and contraction of the boards and will impede the drainage of the deck.

Use TOPLoc™ screws, two at each joist.

Standard Joist Spacing for all TimberTech Boards

	90° Angle	30° Angle	45° Angle
490 kg/m ²	400mm	350mm	300mm

Special conditions will require an engineering inspection and/or reduced spans. Always consult building regulations. Maximum stair joists (stringer) spacing for decking boards is 300mm on-centre. Make sure there is at least one stringer for support in the middle of the stair opening.



Important Information

- For use in areas with minimal obstructed continuous airflow such as roof and on-grade applications use a minimum 50mm joist system supported by the substructure over which the deck is built (we recommend the use of our 10mm Easyfix joist shoes).
- To aid water run-off the deck should slope 12.5mm for every 2.4m away from the house.
- It is advisable to leave 3mm of ventilation on 3 sides for non-capped deck boards.

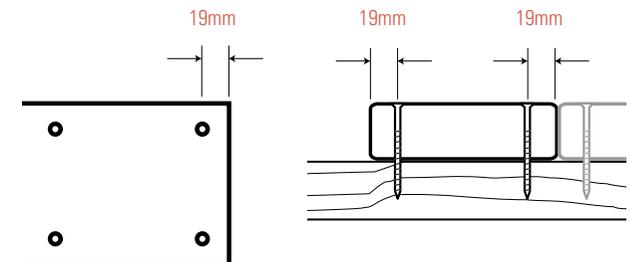
Installation Instructions

Install from the outside edge of the deck toward the house so the ripped board is less noticeable.

- Drill a 4mm pilot hole
- Fasten 19mm from the outside edge and end of each board, using two screws per joist.
- Pre-drill to fasten ends of boards to avoid splitting.

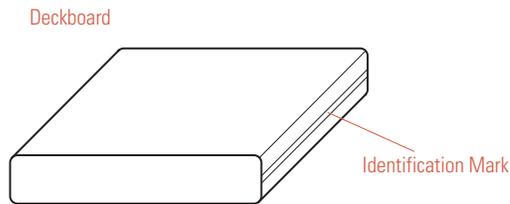
For gapping requirements see page 5. The ends of the boards must fall on a joist. It is strongly recommended that framing members at butt joint locations be doubled up for added fastening surface.

- Rip last board as needed to fit. Install fasteners perpendicular to board surface and drive flush. Do not overdrive or splitting may occur.



Directional Graining

TimberTech's grained surface is directional in manner. A notch has been added to one side of the boards. When installing boards, this marked edge must be laid to the same side for the entire installation for a consistent appearance. To ensure a consistent appearance from board to board when installing, the beveled edge must be laid to the same side.

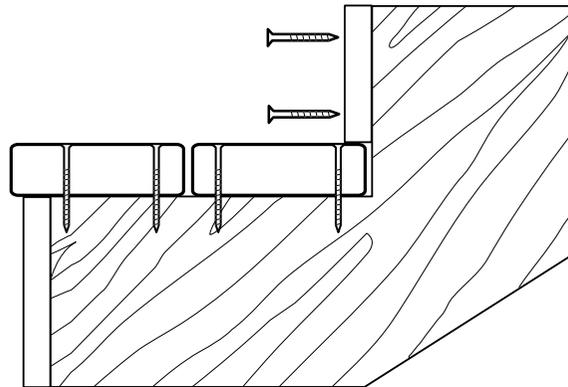


Stairs

TimberTech does not recommend installing boards on steps without a riser board.

- Ensure the step tread is at least the depth of two full boards plus a 3mm to 5mm gap between boards (280mm front to back).
- Ensure there is at least one stair stringer for support in the middle of the stair span. Maximum stringer spacing for stairs is 300mm centres.
- Attach a deck board to the front of the bottom step.
- Leave a 5mm gap between the boards and any other surface including rail posts.
- Place the deck board directly on top of the last board installed for the previous step to create the next step.

Repeat the process above.



Showcase and preserve the beauty of your deck with CONCEALoc® Hidden Fasteners.

Coverage

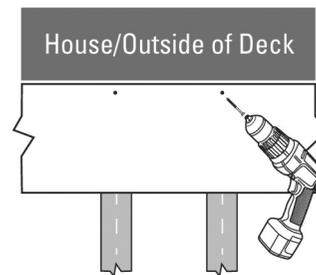
- To cover approximately 9.3 m² of decking at joist centres of 400mm. Each pack contains 175 CONCEALoc Fasteners and 183 screws.
- CONCEALoc Hidden Fasteners are available by the box (9.3 m² cover), bulk packs that cover 93m² or with the screws collated in a 46m² pack (requires a CONCEALoc gun).

Important Information

- **Warning!** Parts have sharp points and edges. Use caution when handling and installing. Wear safety glasses at all times.
- For use in areas with minimal obstructed continuous airflow such as roof terraces a minimum 38mm joist system supported by the substructure over which the deck is built is required (although generally 50mm is mainly used).
- To aid water run-off the deck should slope 12.5mm for every 2.4m away from the house.

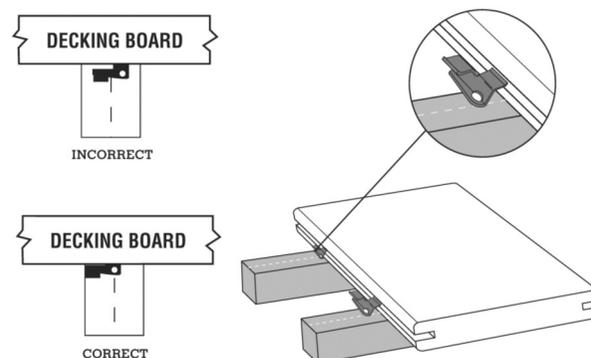
1. Install the First Board

- Pre-drill with 4mm drill bit and fasten outer edge of the first board at each framing support 25mm from the edge using TOPLoc™ high-quality coated deck screws.



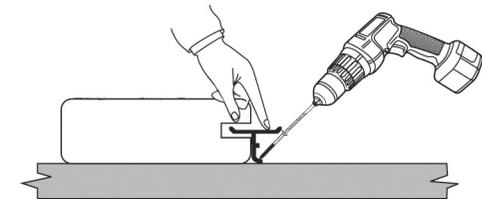
2. Position CONCEALoc® Fasteners

- Fully insert the CONCEALoc® fastener into grooved edge of board. Screw hole should be lined up with the centre of support joist.



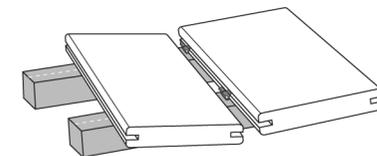
3. Install CONCEALoc® Fasteners

- Using an impact driver, drive the screw at 45° angle through the fastener and into the joist while applying pressure on the fastener.
- Install one fastener and screw at each joist.
- Make sure fastener is in full contact with edge of board and the screw is holding the fastener down tight to the deck board.
- Screw hole should be lined up with the centre of the joist.



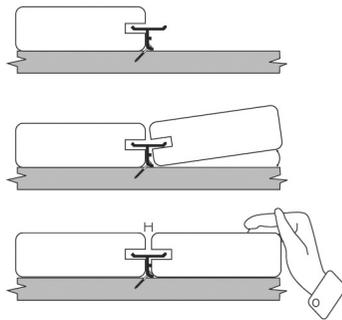
4. Complete Installation

- Place the next board into position against the fasteners. Slightly raise the outer edge of the board being installed and slide it onto the fastener until the board contacts the spacer.
- Tap into place with a rubber mallet.
- The last board will need to have the outside edge attached using the method described in Step #1. It may be necessary to rip the last board to fit.



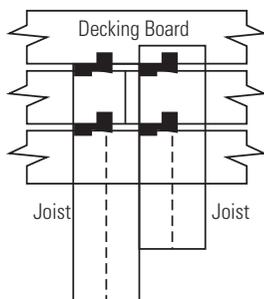
5. Proper Gapping

- Check the gap between the boards for consistency - it will be between 3mm to 5mm.
- Repeat previous steps until deck is complete.



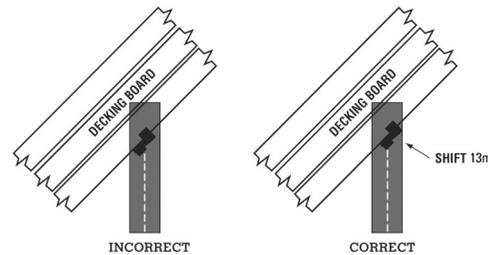
6. How to Install CONCEALoc® at Butt Joints

- Joists must be doubled up at butt joints for proper fastener attachment.
- Install CONCEALoc® and screw at each joist of the first board including the joist at the joint.
- Install second board in the same fashion and place a second fastener at the joint attaching it to the framing block.



7. How to Install on Diagonal

- When the deck is located in a corner of the house, start with small triangular piece of decking in the corner and work your way out.
- Offset the centre 13mm towards the long point of the joist, so screw will not exit the side of the joist when driven.



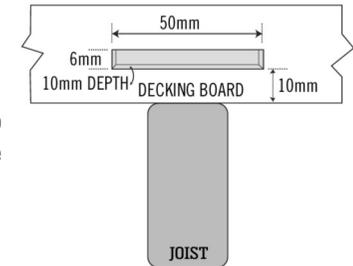
8. Allowing Rainwater to Drain Under Your Deck

- To aid water run-off the deck should slope 12.5mm for every 2.4m away from the house.

9. How to Replace a Board

- Make two parallel cuts down the centre of the board to be replaced, then remove the centre piece.
- Using a small pry bar, remove the remaining pieces of decking from the tabs.
- Using a reciprocating saw, remove the tabs on the side of the board with the screw heads showing.

- Position new board into place, and drive onto remaining tabs.
- Once the board is set into position, secure the loose edges with TOPLoc™ high quality coated screws.



10. To use CONCEALoc® Hidden Fasteners with TimberTech Solid (ungrooved edge) Boards

- Create a 50mm long groove on the edge of the board at every joist.
- Use a 6mm slot cutting bit (Freud model #56-112, Bosch #85610M).
- Flip the board over and start the groove 10mm off the bottom of the board.
- Set the depth of the cut to a minimum of 11mm.

Note: Be sure to ID the side of the board that has the directional V-notch; the boards with IDs should be installed to the same side. See Directional Graining on page 9.

Do Not Use CONCEALoc® Hidden Fasteners for Stair Installation

Steps, Edging and Fixings

TimberTech offer a range of products including steps, edging, colour matched screws and invisible fixings, all designed to provide an unparalleled level of professional finish to your deck.

Steps

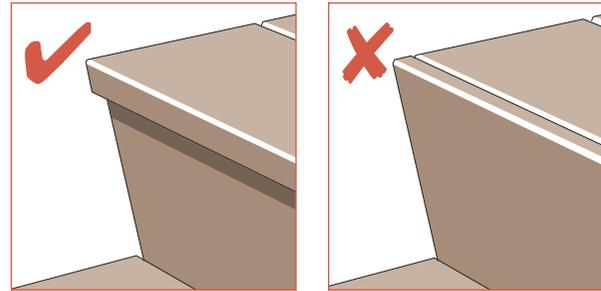
Elevate your decking with a set of sleek TimberTech steps. We've designed everything from a simple, one step level change to 20 step stringers and multi-level illuminated stairs. Our personal advisors will be happy to help you meet your design needs. For steps, we recommend the deck board tread is cantilevered over the vertical riser as shown in the pictures below.

Edging

All of our TimberTech composite decking boards can be crafted and integrated into a seamless final presentation to provide a clean, stylish edge to your finished project. We recommend using solid deck boards for your edging trim.

Steps

For steps we recommend the deck board tread is cantilevered over the vertical riser as shown below.



With proper installation and care, TimberTech products will provide years of outdoor living pleasure.

Storage

Store TimberTech products under cover to maintain a clean surface. If stored outdoors, they must be covered with a non-translucent material.

- All products should be stored flat and on a dry surface.
- Stack units with banding and bottom supports aligned.

Handling

Although all TimberTech boards are made with low-maintenance materials, each board's unique features require special care and handling, ensuring lasting beauty.

To maintain the beauty of TimberTech products please follow these important guidelines when moving and working with TimberTech:

- Never dump TimberTech materials when unloading.
- When carrying TimberTech boards, carry on edge for better support.
- Do not slide boards against each other when moving them. When removing them from the unit, lift the boards and set them down.
- Do not slide tools or drag equipment across the top of the boards during construction.
- Keep the surface of the boards free of construction waste to prevent damage to the boards.

Discarding Scrap Product

Scrap can be discarded with normal construction debris.

Care & Cleaning

Basic Cleaning Recommendations

Although TimberTech products are low-maintenance, TimberTech recommends periodic cleaning of your deck to help maintain the beauty of the product.

A power washer can be used when cleaning TimberTech products. The recommended maximum pressure is 1500 psi for TimberTech decks. A fan tip nozzle should be used along with the proper cleaning product. Spray in the direction of the grain pattern to avoid damaging the product. Use caution not to damage the material and always take the proper safety precautions when operating a power washer.

To remove product identification printing from the side or bottom of a TimberTech deck board use Isopropyl Alcohol (rubbing alcohol).

Ice and Snow

For ice removal, either rock salt or calcium chloride may be used without damage to the surface. However, either of these products may leave a white residue, which can be removed by either rinsing with water or with a mild soap/water solution.

Painting/Staining/Sealing

Although not recommended, TimberTech products may be painted or stained. TimberTech does not guarantee the performance of anything applied to the product.

Wait approximately 8-10 weeks or until the product has completed its weathering process before painting or staining. Clean your TimberTech surface prior to applying paint or stain. Never paint or stain over surfaces that may contain dirt, or mildew. Always apply paints and sealers in accordance with the manufacturer's application instructions.

Dirt, Grime, Tannin and Mildew Stains

TimberTech products are formulated to inhibit mildew growth and minimize staining. Rinse off your TimberTech products periodically with a hose. Even if it appears clean, it is important to prevent build-up of pollen/debris. Mildew stains may occur where moisture, pollens, and/or dirt are present. Mildew needs a food source to grow, which can be grass, pollens, dirt, debris, wood and wood resins.

Maintaining a clean, dry surface is the best method for combating mildew. Ensure that water drains effectively from your deck. Be sure that gaps exist between boards to allow for drainage.

Deck reviver is available from TimberTech. Call 029 2080 3756 for further information.

Like any wood-based product, TimberTech's wood-polymer composite products may experience a naturally occurring process called Extractive Bleeding (sometimes called tea staining). This process may cause a temporary discoloration that will weather away. In most cases the weathering process takes 8-10 weeks but could vary depending on location and specific product application such as a covered porch.

Spot Stains

Many stains can be cleaned with soap and water. Areas cleaned may lighten; this will require 8-10 weeks exposure to the sun to match the remaining product. For information on stain cleaners, call TimberTech on 029 2080 3756.

EasyClean Ranges

Do not use a wire brush on these products. Surface scratches and abrasions on these products will fade after weathering.