

TWINSON® COMPOSITE DECKING SYSTEM



ISSUE 3 MAY 2010

50% WOOD 50% PVC



INSTALLATION GUIDE

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INTRODUCTION



50% WOOD 50% PVC

A hollow core composite decking system, **Q-Deck® Twinson®** is made from wood and PVC giving you the advantage of technology whilst still maintaining some natural material and feel. If you are looking for a more uniform and *colourfast look that is easy to clean and a low maintenance then **Q-Deck® Twinson®** is a great alternative. See pages 10-12 for cleaning and resistance to staining by contaminants.

ENVIRONMENTAL CREDENTIALS

By combining wood and PVC, Twinson® marries tradition with innovation, utilising the power of nature with the latest achievements of technology.

- PVC is a well researched and versatile material which is 100% recyclable.
- The softwood wood fibre in Twinson® is from European waste production and forests that are continually being replanted.
- Low maintenance and robust. It does not warp, split or splinter removing the need for chemical based treatments.
- Great long-term performance.

PRE-PLANNING

Although Twinson® decking is significantly easier to clean than solid timber decking, some surface pollutants may still prove troublesome to remove, ie. particularly very sticky substances (that harden) such as silicone sealants, resins and the sap of trees, decks built in highly shaded positions will require more regular maintenance particularly when situated under established trees.

SAFETY FIRST

- ✓ When handling and processing Twinson® always wear gloves and eye protection and work in a well ventilated area.
- ✓ Wash hands thoroughly after handling Twinson® and especially before eating or smoking.
- ✓ If you are a regular user of Twinson®, 'off cut' bags can be supplied by the manufacturer for collection and recycling.
- ✓ Wear goggles when pressure washing or scrubbing with chemical cleaners or restorers.
- ✓ Keep children away from the work area until the job has been completed and tools have been stored safely.
- ✓ The cutting, planing and sanding of Twinson® may produce large quantities of dust and create a lot of noise so we strongly recommend that personnel carrying out these tasks wear suitable Personal Protective Equipment including gloves, eye protection, particulate dust mask and ear defenders.



* The grooved side of twinson boards appears striped (the base of the groove is a darker shade initially) when new but becomes one uniform shade of colour after exposure to ultra-violet light i.e. the striped appearance is not permanent.

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FITTING OVERVIEW

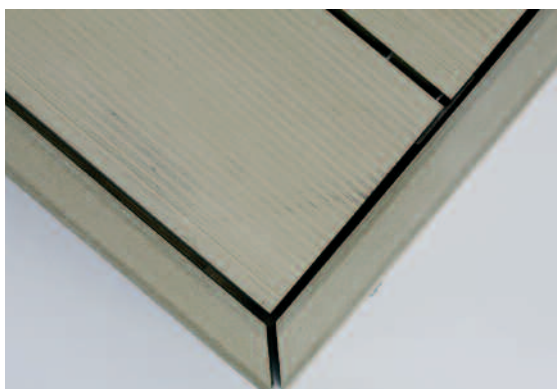
Q-Deck® Twinson® decking can be fitted to a standard timber deck sub-frame.

For flat and uniform surfaces (roof terraces and the like) the Twinson® ground batten is an alternative option to timber joists.

If you require a specific pattern or design, ensure the joist positions will accommodate this.

Note: The maximum distance between joist centres is 500mm for most applications.

The Twinson® bracket ensures a 5mm gap between boards, it is advisable to maintain this expansion gap between joints such as mitres, around newels, between board and fascia and between boards that are butted end to end.



Twinson® unlike wood expands and contracts along its length, so in certain applications a greater expansion gap may be required, ie. allow a 10mm gap when fitting boards length ways on/perpendicular to a solid structure (eg. wall).

As a general rule, for decks that are fitted in the UK there is the potential for twinson decking to expand by up to 3mm per lineal metre. Therefore using short lengths of the material minimises the shrinkage and expansion effects whereas fitting long lengths end to end for large deck areas maximises the effects. The change in dimension of the material is both related to a change in its moisture content and temperature.

Therefore maximum expansion will occur:

- In periods of heavy prolonged rainfall (when the product achieves its highest moisture content) having been fitted during a period of warm dry weather.

and to a lesser extent:

- In the hot summer months (when the product achieves its highest temperature) having been fitted during a period of cold dry weather in the winter.

In summary Twinson® constantly changes in size as the UK weather changes and as long as the product is properly installed to allow for some thermal expansion and to ensure it drains (and therefore dries) sufficiently quickly after rain, the physical affects of shrinkage and swelling shouldn't be noticed.

It is advisable to let Twinson® acclimatise on site for a few days prior to fitting.

For information on timber sub-frame construction please refer to Q-Deck's 'Planning & Design' and 'Installation' documents, available at www.qualitydecking.co.uk or call 0800 849 6339

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FITTING GUIDE (TO TIMBER SUB-FRAME)

- 1 Fit the aluminium Twinson® starter rail to the joists adjoining the house or wall ensuring it is parallel to it. Pre-drill a clearance hole with a countersunk recess though the starter rail only. Secure the starter rail to the joist every 500mm using spare screws from the packs of



fixing brackets P9490.

- 2 (Please refer to points 9 and 10 about how you intend to finish

the edge of the deck.

If you decide to use Twinson® end caps you may have to drill pressure relief holes prior to fitting the boards.)



Simply locate the first board within the starter rail ensuring it is the desired way up.

Note: As a result of the heavy brushing process during manufacture one end of the board is always rubbed away slightly not giving a clean square edge in the thickness. To overcome this Twinson® is supplied 15mm oversize in the length to allow for end-trimming on-site (See image below).

Note: The position of the directional 'pip' is important when laying subsequent boards.



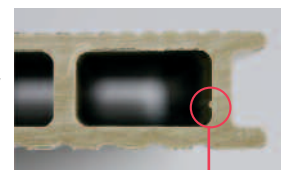
- 3 Using the Twinson® fixing brackets and screws (supplied) at every joist junction, fix the first board on the opposite edge ensuring lateral pressure is applied (the use of a rubber headed mallet is ideal) to the board and bracket for a tight fit.



- 4 Repeat the process for the subsequent boards ensuring they are tight to the fixing brackets.



Note: Ensure the boards are laid in the same plane by keeping the directional 'pip' on the same side.



directional pip

- 5 If laying in a checkboard type pattern the brackets can be secured into the middle void of the boards (when securing the boards in this pattern the maximum length of each board should be 2.0m). Note: An extra joist is required in this situation.



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INSTALLATION GUIDE

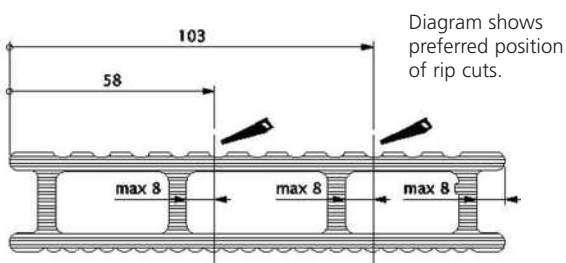
- 6** If laying in a chevron type pattern the brackets are secured as shown.
Note: An extra joist is required in this situation.



- 7** If butting boards end to end the brackets can be secured as shown.



- 8** To secure the outer edge to your deck you finish as you start by fitting more starter rail. If the overall deck size means that less than a whole board width is required on the outer edge then the final Twinson® board(s) will need rip cutting to the desired width.



This time pre-drill an oblique clearance (2mm oversized to gauge of deck screw used) pilot hole through the board (every 500mm) and aluminium starter trim only. To secure the final board use of a 40+mm dome headed deck screw is recommended with care being taken not to over tighten each screw.



Some screw options:

- Screws SWW/40/UH or /PH are ideal in that they are stainless steel and create their own oversized pilot hole. For information about this product, go to www.mainlineproducts.co.uk or e-mail sales@mainlineproducts.co.uk or Telephone 0845 345 7095.
 - Twinson® screw, part no. 2754 can be supplied but only for large projects as they are not stocked in the UK currently (although stainless steel, you will have to create your own oversized pilot hole).
- 9** For an attractive finish, face the edge(s) of the deck with either Twinson® plinth or Twinson® deckboard.

For deep profile / high level decks Twinson® deckboards can be used effectively to finish the vertical edge. The Twinson® board will need rip cutting to achieve both the desired width and to remove one of the fluted edges. The top edge of the board is made smooth by carefully planing and sanding.



continued over...

INSTALLATION GUIDE

9 continued...

The Twinson® material used to finish the face of a Twinson® deck is fitted to the sub frame using dome headed screws (ideally not countersunk). Pre-drill a pair of clearance (2mm oversized to the gauge of the screw used) pilot holes every 500mm, though the Twinson® material only. Secure the 'face' material using 60+mm dome headed deck screws taking care not to over tighten each screw.

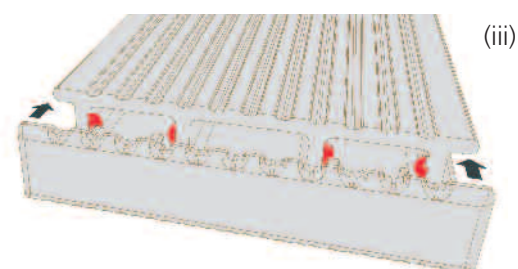
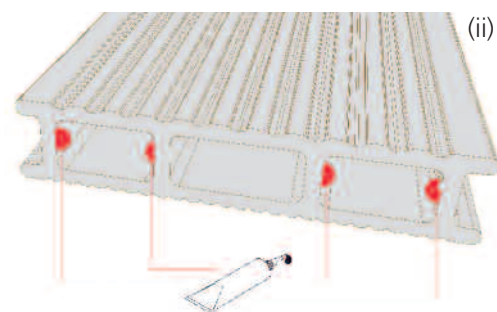
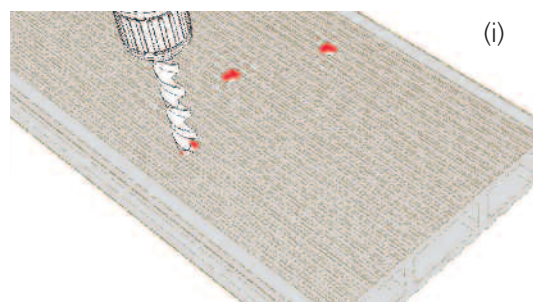


Some screw options:

- Screws SWLP/60/UH or /PH are ideal (although you will have to create your own oversized pilot hole).
For information about this product, go to www.mainlineproducts.co.uk or e-mail sales@mainlineproducts.co.uk or Telephone 0845 345 7095
- Spax 'Washer Head' 8.0 x 80mm (but note this is not a stainless steel screw, you will have to create your own oversized pilot hole).

- 10 Alternatively instead of creating a fascia use the twinson new end caps (available to order) to 'plug' the hollow ends of each twinson board. These are very simply glued in place but take care to orientate them correctly as they have both a grooved and reeded edge. If both ends of the board are capped then pressure relief holes need to be made in the underside of the board before fitting (see diagrams i, ii and iii below).

A suitable adhesive for this is the widely available Gripfill MAX™ by Laybond.



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Finishing the edge of a Twinson® deck on ground batten is different in that one can use the Twinson® plinth (6.0m lengths available to order)

Twinson® Plinth
10 x 78 x 6000mm



Twinson® plinth is fitted to the Twinson® ground batten using dome headed screws (ideally not countersunk). Pre-drill a pair of clearance (2mm oversized to the gauge of the screw used) pilot holes every 500mm. Secure it using 40+mm dome headed deck screws taking care not to over tighten each screw.

Some screw options:

- Screws SWW/40/UH or /PH are ideal in that they are stainless steel and create their own oversized pilot hole. For information about this product, go to www.mainlineproducts.co.uk or e-mail sales@mainlineproducts.co.uk or Telephone 0845 345 7095
- Twinson® screw part no. 2754 can be supplied but only for large projects as they are not stocked in the UK currently (although stainless steel, you will have to create your own oversized pilot hole)

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TWINSON COLOUR SWATCH INFORMATION

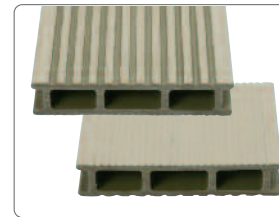


50% WOOD 50% PVC

The Twinson® range comes in 8 unique colours. All are available to order.



Apricot Brown
Reversible Deckboard



Olive Green
Reversible Deckboard

SHADES AVAILABLE TO ORDER VIA THE UK



Apricot Brown



Olive Green



Riverstone Grey



Bark Brown

SHADES AVAILABLE TO ORDER VIA BELGIUM



Almond Beige



Hazelnut Brown



Liquorice Black



Turf Brown

Please note: Colour samples are reproductions only and can deviate from the actual products, new or aged in situation. If uncertain please request a sample as we cannot be held responsible for incorrect colour choice/specification.

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CLEANING OVERVIEW

After your twinson deck has been finished it is advisable to give it a quick wash down with water. This will help remove manufacturing dust that is often still present at this stage. As a result of the heavy brushing process in the manufacture of twinson a lot of dust is created and a certain amount of the dust stays on the product. When cleaning the material for the first time it is normal to witness coloured dust on any cleaning materials.

Note: It is not dye leaching from the material.

It is always best to remove any dirt or marks as soon as possible, using water, mild cleaner and a sponge. In most cases your Twinson® deck can be cleaned with a pressure washer combined with, if necessary, a mild cleaning product. For food marks (such as ketchup, wine, soup, fruit juice, cola, coffee) scrub well with diluted bleach solution then rinse well with water.

A regular fitter of twinson decking swears by the use of CIF foam cleaner for the removal of general grime and to re-invigorate the look of the surface from time to time.

SPECIAL CLEANING INSTRUCTIONS

Remember that any marks should be removed as soon as possible, using water, any mild cleaning product and a sponge. Consult the list below if marks have not disappeared or dried immediately.

Generic name	Product	Special cleaning instructions if not removed immediately (*)
Vegetable, animal and other fats & oils	Butter. Milk Yoghurt Olive oil Salad oil Fondue oil Mayonnaise Cocktail sauce Frying oil Sun cream Lubricant Motor oil Petrol Heating oil	Spray Twinson® O CLEAN on the mark and rub if desired. Leave to act for a few minutes, then rinse with large quantities of water
Burns	Cigarettes Charcoal	Lightly sand surfaces with fine sandpaper, a steel brush or steel wool (**).
Stubborn food residues	Ketchup Tomato puree Spaghetti sauce Red wine Fruit Instant soup	Scrub well with a diluted bleach solution, then rinse with large quantities of water. The use of a pressure washer (***) is recommended to remove stubborn residues.
Sugar-containing soft drinks	Coca cola Fruit juice Soft drinks	Scrub well with a diluted bleach solution, then rinse with large quantities of water. The use of a pressure washer (***) is recommended to remove stubborn residues.
Hot drinks	Coffee Tea	Scrub well with a diluted bleach solution, then rinse with large quantities of water. The use of a pressure washer (***) is recommended to remove stubborn residues.

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SPECIAL CLEANING INSTRUCTIONS CONTINUED...

Generic name	Product	Special cleaning instructions if not removed immediately (*)
Special cleaning products	Cement cleaner Deceuninck cleanup	Scrub well with a diluted bleach solution, then rinse with large quantities of water
	Graffiti cleaner O CLEAN	Lightly sand surfaces with fine sandpaper, a steel brush or steel wool (**).
Organic solvents	Acetone MeCl MEK Trichloroethylene Isopropanol Tetrahydrofuran Diethyl ether	Lightly sand surfaces with fine sandpaper, a steel brush or steel wool (**).
Acids	Sulphuric acid Nitric acid	Lightly sand surfaces with fine sandpaper, a steel brush or steel wool (**).
Bases	Caustic soda Ammonia	Lightly sand surfaces with fine sandpaper, a steel brush or steel wool (**).
Paint	Water-based Synthetic	Remove paint with a filling knife and lightly sand surfaces with fine sandpaper, a steel brush or steel wool (**).
Hardened materials	Silicone Glue Candle wax Resins/Tree sap	Repeated treatment with Twinson® O CLEAN. If this treatment is unsuccessful, remove material with a filling knife and lightly sand surfaces with fine sandpaper, a steel brush or steel wool (**).

- (*) If certain marks have not been removed immediately for any reason, they may dry on the surface. They typically fade or disappear after exposure to outside conditions (sun and water).
- (**) Sand in the direction of the grooves to prevent unnecessary damage to the surface. By removing the upper layer the original colour as established at installation is acquired. This minor difference will be rectified after no more than 12 weeks by which time the colour will be uniform.
- (***) Pressure washer (max 100 bar) combined where needed with a mild cleaning product.
Always use the water jet in the direction of the grooves, avoiding any turning movements.
Note: This must be set on single stream setting and not on multi stream

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CHEMICAL RESISTANCE OF TWINSON® MATERIAL

Twinson® material has been extensively tested on a large number of products that it may come into contact with during its application.

- Is resistant to: This product leaves no permanent mark on the material or the stain disappears in a short space of time after outside exposure.
- Is less resistant to: This product leaves a light mark on the material.
- Is not resistant to: This product leaves marks on the material that remain clearly visible

Resistant to	Less resistant to	Not resistant to
Floor soap + water Concentrated bleach solution (chlorinated water) Concentrated ammonia Road salt (for icy roads) Weed killer household product used to clean windows (e.g. Instanet) White spirit chlorinated water used in swimming pools dish washing detergents (e.g. Dreft) Coffee Fruit juice Coca cola Drinking chocolate Chalk Isobetadine Silicone oil (=a silicone based lubricant) Fuel oil (diesel & petrol) Lubricants based on petrol derived products (liquid & solid) Cement Synthetic thinner Graffiti cleaner	Butter Milk Sun cream Vinegar Red wine Ketchup Candle wax Cement cleaner	Silicone (= a silicone based sealant) Resin/Tree sap Acrylic paint Synthetic paint Shoe polish Felt-tip Deceuninck cleanup Lipstick PVC glue Strong acids Strong bases Acetone

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TECHNICAL SPECIFICATION

Density	1400Kg/m³	
Weight	2.5Kg/m	
Impact resistance	3-6 Kj/m²	(ISO 6603-2)
Brinell hardness 3000N	120 N/mm²	(EN1534)
Flexural E-Modulus	5000-7000 N/mm²	(EN310)
Bending Strength	38 N/mm²	(EN310)
Water absorption 24hrs	0.2-0.6%	(EN317)
Linear expansion	0.021 mm/m °C	(ISO 11359-2)
Durability class	1	(EN350)
Vicat softening point	85-95 °C	(EN ISO 306/B50)
'Wet' slip resistance tested	*59 USRV	(EN 1339 annex 1)

*Where a value of above 45 rates a product as having a 'low' potential for slip in wet conditions. Value of 35-44 'moderate', 25-34 'high' and 0-24 'very high' potential for slip.



25 Year Warranty

For a period of twenty-five (25) years from the date of original purchase, Twinson® products shall not split, splinter or suffer structural damage as a sole and direct consequence of termites, insects or soft rotting micro-fungi.

LIMITATIONS

For a period of ten (10) years from the date of original purchase, Twinson® products shall not break. However this warranty explicitly excludes occurrences where the break occurs or may have occurred as a consequence of impact loads or poor design/construction methods. This warranty applies to the use of products in normal residential use.

Contact Hoppings Softwood Products on 01992 578877 if you require a warranty for a deck that is to be created in a commercial type situation.

WHAT'S NOT COVERED

This warranty does not provide protection against misuse, abuse, neglect or improper storage or handling. Hoppings cannot be held responsible for product failure due to improper installation or failure to abide by Hoppings fitting instructions. It also excludes the discolouration/staining of the products due to:

- Air borne pollutants, such as mould, algae, leaf litter and any deposits from plants and trees.
- Any other foreign substances that are not listed in this document.

The warranties are wholesaler/manufacturer to consumer/buyer warranties.

However the initial raising of a complaint should be directed to the authorised retailer from where the goods were purchased. The complaint should be made in writing/e-mail and must include proof of purchase ie. a copy or scan of the original invoice.