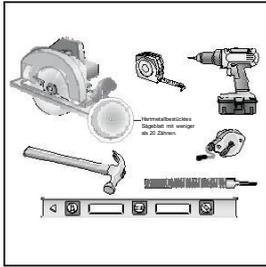
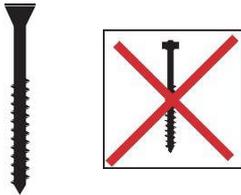


# WPC Decking Installation



## 1. Tools

The following tools are recommended for building the deck: circular saw (carbide tipped blade with more than 20 teeth is recommended), power screw driver, rubber mallet, spirit level, and a tape measure. To avoid marking the boards, when drawing cutting lines use only markers which disappear after some time by themselves. As with any building project, proper eye, ear and lung protection equipment should be used. Always follow local building and safety codes.

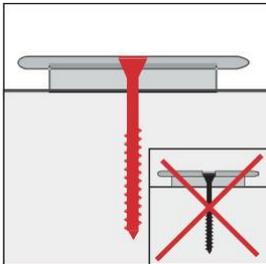


## 2. Screws

Use 4 x 40 mm A4 quality stainless steel countersunk head screws when using the Wing Clip for installation. Wing Clips are designed for screws with a head diameter of 5 to 6 mm. Use of other screws may lead to product failure and could invalidate the manufacturer's guarantee.

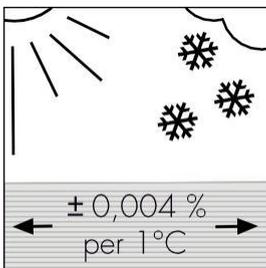
A2 quality is sufficient for normal locations but A4 quality should be used where there is an increased risk of corrosion (E.g. near the sea or next to a swimming pool). Low-quality screws may cause stains on the deck.

Please use the correct torque to ensure the screw head finishes level with the clip surface. Do not insert the screw too deep into the clip. This could damage the clip.



## 3. Material need

For each square metre of deck you will need about 7 linear metres of Lifecycle boards and approximately 20 Wing clips. (actual amount depends on deck size).



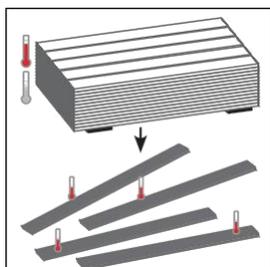
## 4. Thermal expansion gaps

Composite deck boards will expand and contract slightly along their length with changes in temperature. Boards installed during the early spring or winter, (i.e. when the boards are cold), will expand as the weather warms up. Expansion gaps must be left at the ends of the deck boards, whether it is where the ends of two boards meet, or where the end of a board is laid up to a wall or other fixed surface.

Boards installed in hot weather require shorter gaps, as they will shrink when they cool. The amount of expansion per degree change in temperature is proportional to the length of a board. Random staggering of joints as is often made with a timber deck is not recommended. The expansion gaps can be made into part of the deck design: see the reference photos on [outdoorfloorprice.com](http://outdoorfloorprice.com)

### 5. Equalising the boards temperature before cutting and installation

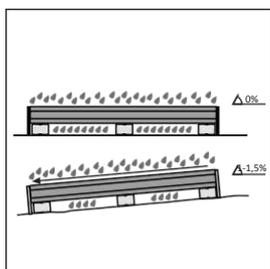
To ensure that all deck boards are at the same temperature when cutting and installing, it is important to spread the boards out before starting the installation. Cutting of the boards to length should ideally be done at the same time. If the boards are not at the same temperature when cut to length, they will end up at different lengths when the temperature has equalized. If allowed by local conditions, it is recommended to cut the boards after installation using a circular saw with guide rail.



**Note:** If you use more than one pack mix boards from each of them before installation. Also mix boards from a single pack before installation to assure pleasing shade selection of the boards.

### 6. Inclination and ventilation

Classic boards can be installed with no incline. However, installing the boards at a gradient (e.g. between 1 - 1,5%) results in faster deck drying and the run-off rainwater will help to wash away dust. In all cases the ground surface under the deck should be able to drain freely and all the deck surfaces and under-constructions should be well ventilated. Please follow normal terrace construction guidelines to ensure good ground drainage and deck ventilation.

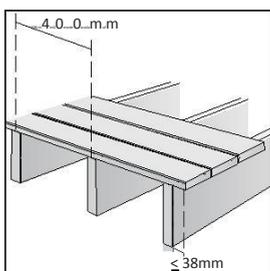


Lifecycle boards may have a slight curvature on one side due to the special production natural cooling method. To ensure maximum drainage of water from the boards it is recommended to install the boards the curved side facing upwards.

### 7. Sub-structure

The sub structure can be built using either Support Rail or Aluminium support rail small or if structural joists are required you can select from treated timber joists or

Aluminium Support rail large. In either case the base on which they are installed should be flat, stable, and incorporate an incline to facilitate drainage. Typical base types are concrete blocks, impacted stones, or concrete. support rails can only be selected when installation is directly onto a hard surface.



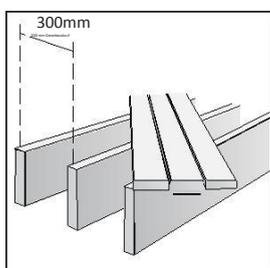
The joists should be interconnected and suitably anchored to the base or interconnected to prevent movement of the deck during its lifetime. Building regulations should be followed, and specialist advice should be sought for roof terraces and other raised decking. The joists should be parallel to the direction of drainage. When the UPM Rubber Pad or Foot are used they allow the joist to be used in either direction.

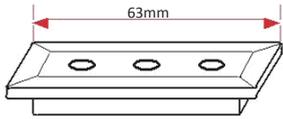
The distance between support rails or joists must not exceed 40cm. (30cm when laying the boards diagonally to the joist). Classic boards must not be used above ground floor applications, unless built on a solid load bearing surface: e.g. a concrete balcony or roof terrace.

Please note that the maximum recommended overhang of a board end is 38 mm.

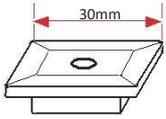
**Note:** If all boards of the terrace are to be attached by direct screwing instead of using Wing Clips (which is not recommended for aesthetic reasons), the substructure must be made of timber joists.

When screwing directly through the decking boards into the joists, high quality (minimum) 5 x 60 mm A4 or A2 stainless steel screws are needed.

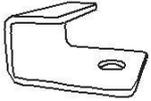




A Wing Clip Large



B Wing Clip Small



C Start Clip

## 8. Fixing deck boards with Wing Clip hidden fastening system

Classic boards with edge grooves allow the use of Wing Clips for hidden fastening. The boards can be cut and shaped in the same way and with the same tools as for timber decking.

Please check the boards before installation and choose the side you prefer as top side.

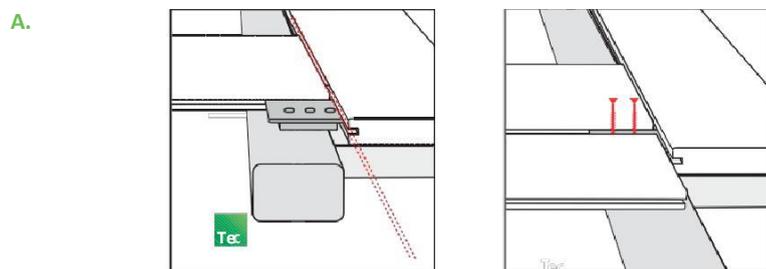
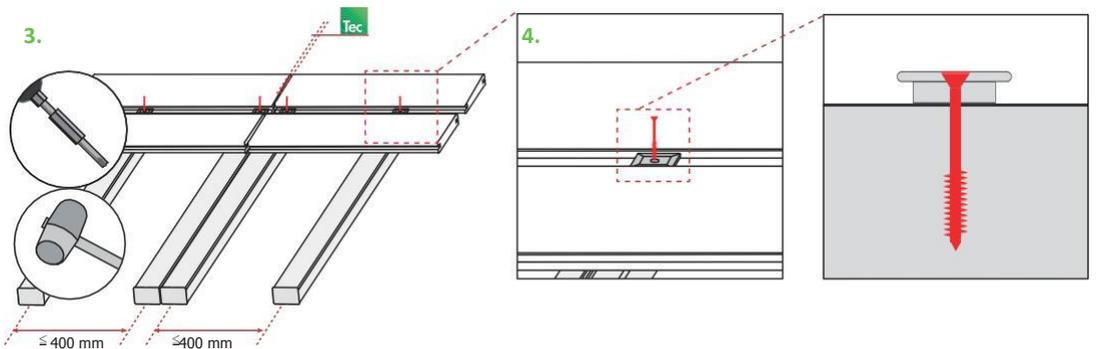
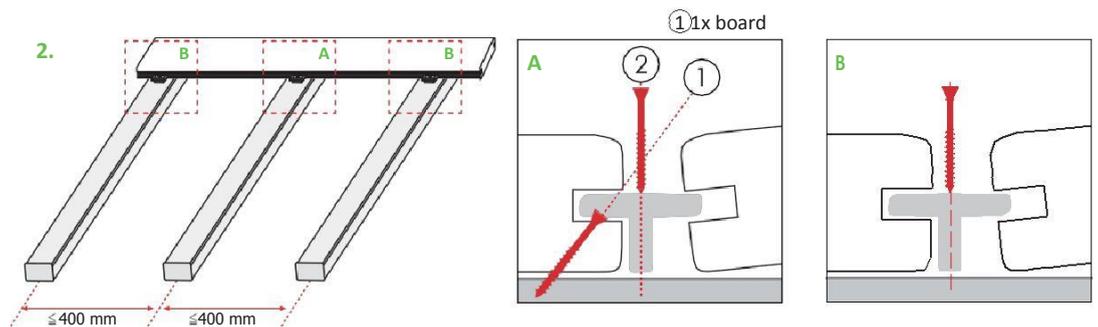
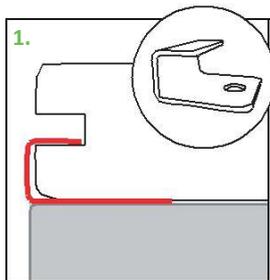
1. Attach Start Clips centrally onto the joists. If using Aluminium or timber joists, pre-drill using a 3 mm drill bit. Slide the first board groove into the start clip tab. Instead of using Start Clips, boards may also be screwed directly into joists (see chapter 11). In both cases ensure that the first board is at right angle to the joists.

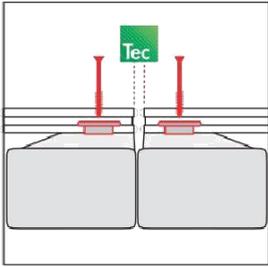
2. Fix one screw directly through the bottom tongue at the middle of each deck board. This single direct fixing of the deck board to the joist will ensure that the expansion and contraction can still occur at both ends, but that the board itself stays in place. Then slide the Wing Clips firmly into the groove of the first board above every supporting joist.

3. Take the next board and slide to the clip tabs, pressing it firmly into place.

4. Screw the clips to the joists so that the screw head is even with the clip surface. (see details from Chapter 2: Screws).

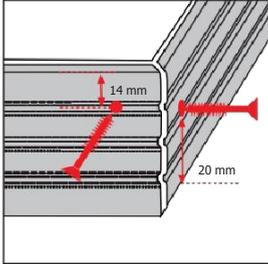
**Note!** If necessary use clamps or tension belts to get uniform gap sizes.





### 9. Joining ends of boards

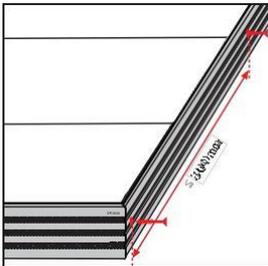
Support both boards with their own joist. Leave an expansion gap between the two boards (see chapter 4: Thermal extension gaps) Fix each board with the Wing clips.



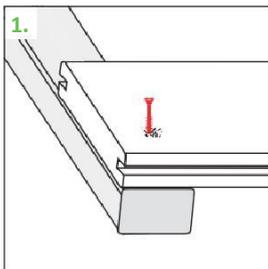
### 10. Cover profiles

a. To create perfect finish for the terrace Veranda cover strips can be fixed as illustrated. Please note expansion gaps (see chapter 4).

b. Lifecycle boards are also available without edge grooves for use as fascia cover boards to enclose the sub structure. The boards may be directly fixed with 4 x 60mm A4 stainless steel screws.

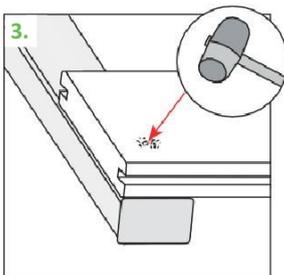


The spacing between the screws should not exceed 300 mm. Allow a minimum 6 mm gap between the fascia and any vertical walls or the ground for drainage.



### 11. Hiding the screw head when screwing directly into the joists (in board ends and cover boards)

1. Counter-sink the screw into the board by 6 mm.
2. Push the displaced decking material with your thumb into the hole left by the trim head screw.
3. Secure the decking material by tapping with a rubber mallet.



**Note!** The displaced decking material may be removed when washing the deck particularly with a high pressure washer.

