INSTALLATION GUIDE

Being a composite product, Ekodeck+ behaves and has different characteristics to timber. To achieve a safe and long lasting Ekodeck+ installation, it is important to read the following guide in full.

Ekodeck+ boards are made for installation with the Quickfix Hidden Fastening System, providing you with a surface free of fasteners and a faster, easier installation.

The installation guide is intended to be viewed along with the Ekodeck+ installation videos found on our website www.ekodeck.com.au

WARNINGS

1. It is the sole responsibility of the homeowner, contractor or the installer to determine the specific requirements, effectiveness, suitability and safety in regard to any application or use of Ekodeck+ products.

2. Ekodeck+ is not designed to be a freestanding product. It must be installed safely and correctly fixed down to a substructure.

3. The substructure must comply with all the relevant regulations and aspects of the Building Code of Australia. The substructure must be anchored to the ground on all sides including the house.

Ekodeck+ should not:
- Be used in a substructure application.
- Be applied directly to a solid surface such as concrete.
- Have a cantilever (overhang edge of an Ekodeck+ board) greater than 20mm.

4. Any single piece of Ekodeck+ must be installed over at least 2 spans (i.e. 3 joists) to keep within the structural load bearing limits of its design.

5. Ekodeck+ must have sufficient gaps provided between boards and at joins and edges to allow for proper thermal movement and ventilation.

NATURAL VARIANCES & COLOUR

Ekodeck+ is made from reclaimed and recycled materials. Whilst every care is taken to ensure consistency of performance and quality, natural variances will occur from one board/batch to the other in appearance, colour and texture. These variances are similar with those naturally found on timber decking and are designed to blend in and even out over time.

Ekodeck+ board dimensions are subject to normal manufacturing variations and tolerances. Reasonable variances in board dimensions are not considered a product fault and due care should be taken when installing to allow for these.

Ekodeck+ will never fade to grey like timber when exposed to the elements. Ekodeck+ contains 45% natural timber fibres. When exposed to UV these fibres will slightly lose their brightness. This is a normal process for any exterior building material. After 3-6 months Ekodeck+ will stabilise and maintain its colour.

HEALTH & SAFETY

Always use proper protective clothing and safety equipment when cutting and drilling.

GAPS & SPANS

Centre-to-centre joist spacing (max) 450mm
Min ground clearance 90mm
Min side-to-side gap 6mm auto-spaced by clip
Min end-to-end gap (butt joint) 0-4mm*
Min gap for side edge to solid structures 4mm
Min gap for end edge to solid structures 2-6mm*
Min gap for end edge to breaker board 1-3mm*

*Gap distances vary depending on temperature during installation. Read section ‘Expansion gaps’ to discern appropriate gapping for your project.

CUTTING

For best results, use carbide tipped blades. When using a drop saw we recommend a 60-80 tooth blade for cutting.

VENTILATION

When designing your deck, consideration must be given to ventilation. Avoid the tendency to box or seal the deck in completely. We recommend a minimum of 90mm ground clearance.

THERMAL EXPANSION AND CONTRACTION

Ekodeck+ expands and contracts in length with changes in temperature. This is normal behaviour of any wood plastic composite and is not a product fault. It is most important to take this into consideration.

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during installation of your Ekodeck+. Failure to do warranty claim. The amount of expansion and contraction you experience is dependent on several different factors including:

- **Climate** – Installing in the peak of summer or winter or large changes in temperature between day and night.
- **Deck position** – if the deck is in direct sunlight or part shade etc.
- **Board length** – the longer the board, the more it will expand
- **Fully fastened boards** – you will notice less movement in the boards once they are fully installed to the substructure.

**EXPANSION GAPS**

It is important to take Thermal Expansion & Contraction into account when gapping your boards. Ekodeck+ expands along its length, not in its width. If you are installing in the peak of summer or a hot day for your location, butt the boards together - they will contract as they cool resulting in gaps opening. If you are installing in the peak of winter or a cool day for your location, the required gap should be left to give the boards room to expand.

In moderate temperatures, we recommend leaving a gap somewhere in between to allow for the expansion and contraction of the boards.

**TIPS:**

- Allow the boards a few days to acclimatise to your site conditions. This allows your Ekodeck+ to adapt to the ambient heat typical of your location.
- Delay any edge/length trimming until after installation and preferably trim at the same time.

**INSTALLATION & FASTENING**

Ekodeck+ is installed using the Quickfix Hidden Fastening System.

**Fixing Ekodeck+ with Quickfix to Timber joists**

Please see page 4 for Quickfix timber instructions

**Fixing Ekodeck+ with Quickfix to Steel joists**

Please see page 6 for Quickfix steel instructions

**Tips for the finishing board:**

There are two options to finish off your Ekodeck+ deck.

- Overhanging board finish (insert image)
- Exposed fascia board finish (insert image)
  Either top screw the last half of the board or for a consistent hidden look use L-Brackets

underneath the board and fasten into joists.
- Cover the exposed groove with a standard Ekodeck board (non-grooved) to act as a facia board; or
- Using a power saw, cut (rip) the grooved side off the Ekodeck+ board. Sand the cut edge using 40 grit sandpaper.
- Please refer to our website www.ekodeck.com.au for videos and tips.

**BREAKER BOARDS**

The use of breaker boards is strongly recommended. They can be used as an alternative design to butt joints and limit the visual effect of butt joint and mitre joint gaps opening and closing. By using breaker boards, you only contend with the expansion/contraction of one board - end gaps are as little as 1-3mm (depending on temperature when installing).

Example of a breaker board design (recommended for decks longer than 5.4m):

Another recommended option is to change the direction of the boards at the corner of the house:

A minimum end gap of 1-3mm applies when using breaker boards.
BUTT JOINTS

For visual reasons, butt joints should be staggered and additional joist support (i.e. blocking) is recommended to provide a greater fastening area and to avoid splitting the joist or board. As you are dealing with the expansion/contraction of two boards a minimum end gap of 0-4mm is required (depending on temperature when installing). Although using breaker boards is recommended, you can still use butt joints in your deck design where the deck is less than 5.4m in length. When using butt joints there needs to be some consideration when planning your substructure.

Random Staggered Butt Joints:
As a general rule, you can install a standard substructure when designing your deck with random staggered butt joints. However, before you lay the boards you need to ensure that the joists are double blocked where the butt joints meet. This will allow you to fit and secure 2 Standard Clips (one at each of the board ends).

Brick Staggered Butt Joints:
The substructure for brick staggered butt joints will require a double joist to be used where the butt joints meet. This will allow you to fit and secure 2 Standard Clips (one at each of the board ends).

CLEANING AFTER INSTALLATION

A general clean is essential immediately after installation to remove tannins and surface debris from installation and periodically as you see fit:

1. Scrub the deck with hot water and dishwashing liquid with a medium bristle brush.
2. Wash down your deck thoroughly – a high pressure hose is recommended.

CLEANING YOUR EKODECK+

Cleaning requirements of your Ekodeck product will vary depending on product use and weather exposure. We recommend a general clean is performed at least annually. As Ekodeck is not impermeable to stains, any foreign substances should be cleaned off immediately. Ekodeck can stain, especially if not cleaned regularly.

Refer to our Care & Maintenance guide for more information.
EKODECK+ INSTALLATION WITH QUICKFIX TO TIMBER JOISTS

1. Position a starter clip on top of the first timber joist a minimum of 4mm from the wall (use a packer if necessary) and screw in to place.

2. Repeat on last joist.

3. Run a string or chalk line from the front edge of the starter clip between the first and last starter clips and mark the remaining joists.

4. With the top of the joists now marked, install the rest of the starter clips. Starter clips can be placed on every second joist if necessary.

5. Gently push the first Ekodeck+ board into the starter clips. You may need to angle the board slightly to push into the starter clips.

6. Predrilling steel joists is necessary to avoid shearing screws during installation. The following table should be used as a guide to determine the size of drill bit needed.
7. Insert standard clips and locking clip into groove of the board as shown. (Note: only use 1 locking clip per board, which would usually go on the centre joist).

8. Predrill the steel using your predetermined drill bit size. (Note: An offcut of Ekodeck+ the width of your joist can be used as a jig to hold the clips in place whilst predrilling.)

9. Screw down approximately 2mm to hold the clips in place.


11. Repeat these steps and lay approximately 2-5 boards before screwing down properly (this is a guide only). Measure out from the first board to the last board to ensure that the boards are square.

12. Screw down this section of decking. Do not overtighten screws.

13. When installing the locking clip, ensure that the screw is tightened sufficiently so the teeth bites into the groove of the Ekodeck+ boards.

14. Repeat process until finished
EKODECK+ INSTALLATION WITH QUICKFIX TO STEEL JOISTS

1. Position a starter clip on top of the first timber joist a minimum of 4mm from the wall (use a packer if necessary) and screw in to place.

2. Repeat on last joist.

3. Run a string or chalk line from the front edge of the starter clip between the first and last starter clips and mark the remaining joists.

4. With the top of the joists now marked, install the rest of the starter clips. Starter clips can be placed on every second joist if necessary.

5. Gently push the first Ekodeck+ board into the starter clips. You may need to angle the board slightly to push into the starter clips.

6. Predrilling steel joists is necessary to avoid shearing screws during installation. The following table should be used as a guide to determine the size of drill bit needed.

<table>
<thead>
<tr>
<th>STEEL THICKNESS</th>
<th>DRILL BIT SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5mm</td>
<td>3mm</td>
</tr>
<tr>
<td>1.5 - 2.4mm</td>
<td>3.5mm</td>
</tr>
<tr>
<td>2.4mm</td>
<td>3.75mm</td>
</tr>
</tbody>
</table>

7. Insert standard clips and locking clip into groove of the board as shown. (Note: only use 1 locking clip per board, which would usually go on the centre joist).

8. Predrill the steel using your predetermined drill bit size. (Note: An offcut of Ekodeck+ the width of your joist can be used as a jig to hold the clips in place whilst predrilling.)

9. Screw down approximately 2mm to hold the clips in place.

11. Repeat these steps and lay approximately 2-5 boards before screwing down properly (this is a guide only). Measure out from the first board to the last board to ensure that the boards are square.

12. Screw down this section of decking. Do not overtighten screws.

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14. Repeat process until finished.