



ekodeck®

INSTALLATION GUIDE



INSTALLATION GUIDE

To achieve a safe and long lasting Ekodeck installation, it is important to read the following guide in full.

IMPORTANT INFORMATION

Always use proper protective clothing and safety equipment. Protection of the eyes, nose and mouth from dust particles is especially important when cutting and drilling in confined spaces. Using safety glasses, gloves, a dust mask and long sleeves is highly recommended.



WARNING!

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

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

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 boards are heavier and more flexible than traditional timber and should always be carried on their side edges for better support. Always exercise precaution and care when lifting Ekodeck boards. Do not attempt to lift or carry more Ekodeck boards than can be safely handled at any given time.

EKODECK SHOULD NOT:

- Be used as a structural or load bearing member.
- Be applied directly to a solid surface such as concrete.
- Have a cantilever (overhang edge of an Ekodeck board) greater than 20mm.

Proper ventilation and air circulation underneath and between boards is necessary to facilitate the evaporation of water and moisture. It will also allow Ekodeck to expand and contract naturally. The recommended ground clearance is 300mm. The maximum joist spacing is 450mm.

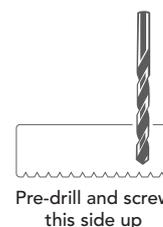
The weathering process for Ekodeck products will vary according to exposure to different climates, sunlight and moisture. Ekodeck boards will usually achieve their fully weathered colour within 3-6 months. Slight colour variation of Ekodeck boards will occur and are considered normal and not a defect or fault. Our aim is to replicate the variations found in natural timber to give your deck the most natural look possible.

INSTALLATION & FASTENING

Pre-drilling and countersinking all holes is recommended when installing Ekodeck boards. This is to avoid mushrooming (i.e. when the material rises up above the screw and the surface of the deck).

When drilling holes, frequently remove shavings by raising the drill bit out of the hole to avoid clogging. Pre-drilled holes must be at least 15mm away from the end edge and 20mm from side edges of the boards.

Ekodeck should be fixed with 2 fasteners at every joist and any single piece of Ekodeck must be installed over at least 3 spans (i.e. 4 joists) to keep within the structural load bearing limits of its design.



CUTTING

For best results, use carbide tipped blades. When using a drop saw we recommend a 10" (254mm) blade with 60 teeth or 7¼" (184mm) blade with 60 teeth for cutting.

As Ekodeck contains recycled plastic, cutting may cause electrostatic build up causing the shavings to cling to your saw blade. Your saw may need to be wiped down at the completion of the job. Where possible cut Ekodeck using a dust extractor (if your saw has this attachment); this will reduce this effect and make for an easier clean up.

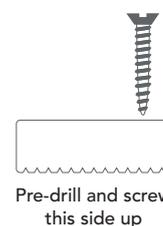
FIXING TO TIMBER JOISTS

Screwing using stainless steel 10g x 50mm/60mm screws is the recommended method of fixing Ekodeck.

Pre-drill pilot holes that are at least the size of the screw shank. In warmer climates you may need to pre-drill holes slightly larger than the diameter of the screw to allow for increased movement caused by expansion and contraction.

When pre-drilling, minimise the amount of joist penetration. This will make the screw bite more into the timber and better secure the fastener.

Nailing is not recommended.



FIXING TO STEEL JOISTS

When fixing Ekodeck to steel joists we recommend that you pre-drill and countersink before screwing the deck down. This is similar to the way that you would fix a hardwood deck to steel joists.

The size of the pilot hole should be slightly larger than the diameter of the screw. We recommend the use of a high quality galvanised steel screw when going into steel.

HIDDEN SCREW FIXING SYSTEM

If you would prefer to use a hidden screw system, where the screws are neatly hidden from view, then we recommend the Camo Hidden Fastening System available through Bunnings. The Camo System will only work on timber joists, and you must pre-drill the ends of the Ekodeck boards.

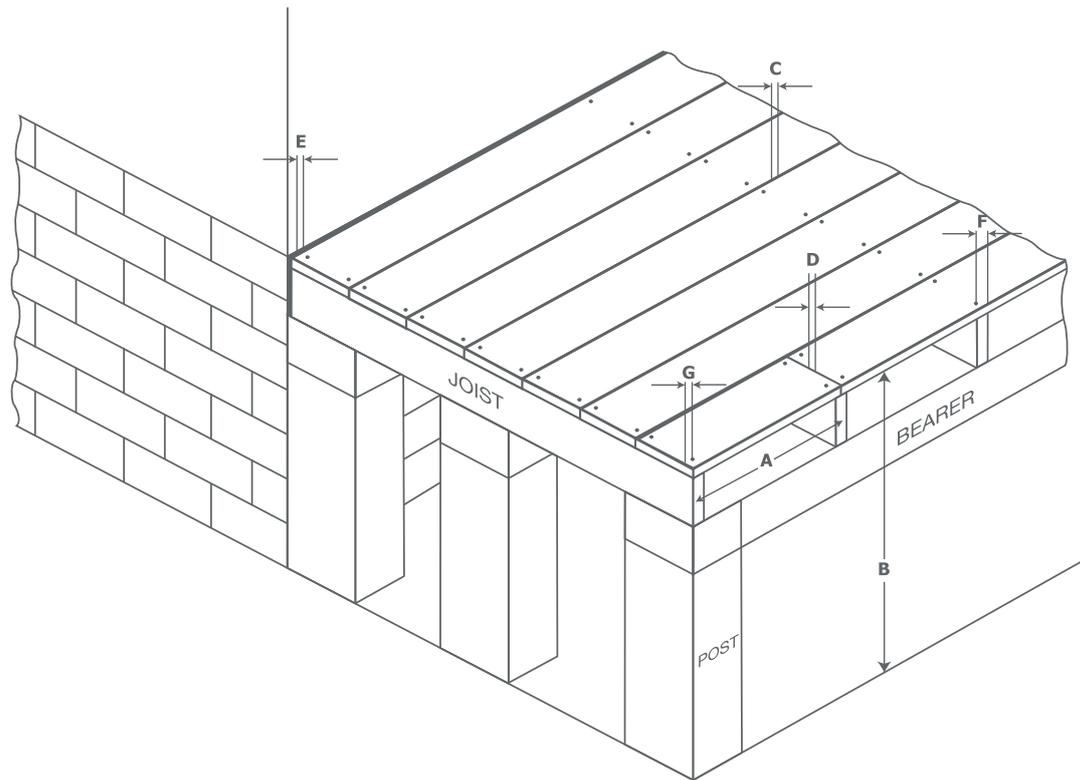
VENTILATION

When designing your deck, consideration must be given to ventilation. We recommend a ground clearance of 300mm and a 6mm gap between boards to facilitate optimum airflow. Avoid the tendency to box or seal the deck in completely. The deck must have adequate airflow to allow it to breathe.

GAPS & SPANS

Ekodeck profile	Specification (mm)	
	88 x 23 x 5400	137 x 23 x 5400
A. Residential centre-to-centre joist spacing (max)	450	450
B. Minimum ground clearance	300	300
C. Minimum side-to-side gap	6	6
D. Minimum end-to-end gap (butt join)	4*	4*
E. Minimum gap from side and end edge of board to solid structures	6	6
F. Minimum distance from side edge for fastening boards	20	20
G. Minimum distance from end edge for fastening boards	15	15
Stainless Steel Screws (pre-drill and countersink)	Recommended	Recommended

*Please refer to section on Expansion and Contraction for more information.



EXPANSION & CONTRACTION

Ekodeck expands and contracts 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 proper consideration during installation of your Ekodeck. Failure to do so can void any warranty claim.

The amount of expansion and contraction you experience is dependent on several different factors including:

- Seasonal climate – installing in the peak of summer or winter
- Deck position – if the deck is in direct sunlight or part shade etc
- Local climate – if the local area is subject to large changes in temperature during the day compared to night
- Board length – the longer the board, the more it will expand and contract
- Fully fastened boards – you will notice less movement in the boards once they are fully installed/fastened down to the substructure.



BUTT JOINS AND EXPANSION GAPS

As a result of these aforementioned factors leaving a 4mm expansion gap at the butt joint is a good guide. However, if you are installing in the peak of summer or on one of the hottest days for your location close this 4mm gap and butt the boards together.

Evenly spread your butt joints across the area of the deck and avoid concentrating them on 1 or 2 joists. Additional joist support (i.e. blocking) is recommended to provide a greater fastening area and to avoid splitting the joist or the board.

An alternative to using butt joints is breaker boards. Breaker boards can be used instead of butt joints in your installation and should be used if your deck is larger than 5.4m. For more information please refer to the section titled "Breaker Boards".

Tips:

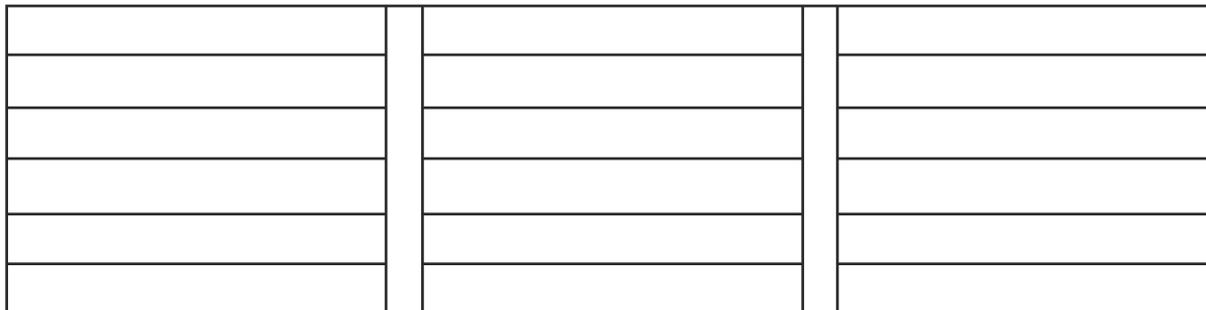
- Allow the boards a few days to acclimatise to your site conditions. This allows your Ekodeck to adapt to the ambient heat typical of your location.
- Delay any edge/length trimming to a few days after installation is complete and preferably trim on a cool/moderate day.

BREAKER BOARDS

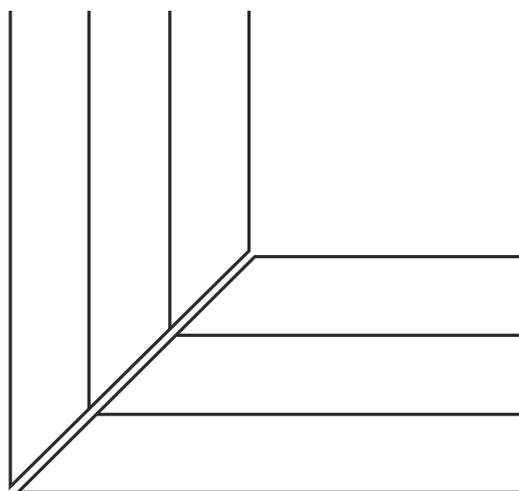
The longer the board length, the more the board will expand and contract. While Ekodeck comes in long 5.4m lengths suitable for most areas, we recommend the use of breaker boards where the deck length is greater than 5.4m.

The use of breaker boards is an alternative design to butt joints and can be used to limit the visual effect of butt join gaps and mitre join gaps opening and closing. A minimum end gap of 2mm applies when using breaker boards. The diagrams below are for illustration purposes only.

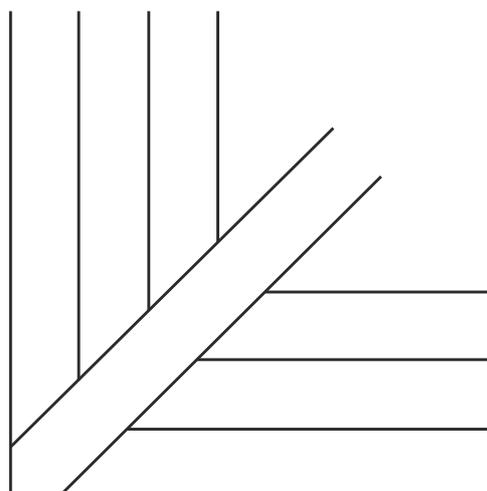
Example of a breaker board design (recommended for decks longer than 5.4m):



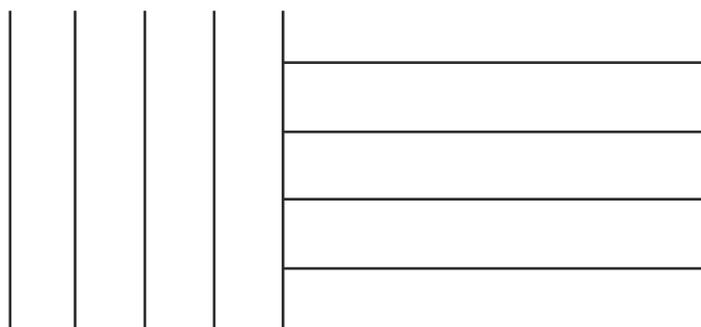
Multiple mitre join design (not recommended):



Multiple mitre joins with a breaker board (recommended):



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



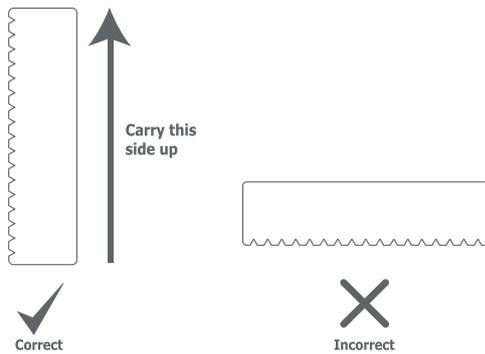
You may choose to position your breaker boards to tie in with certain features of your home – for example: doorways or windows, or just create the feeling of a separate area. The use of breaker boards can greatly enhance the design of your deck as you take advantage of Ekodeck's long, clean, straight lines.

STORAGE & HANDLING

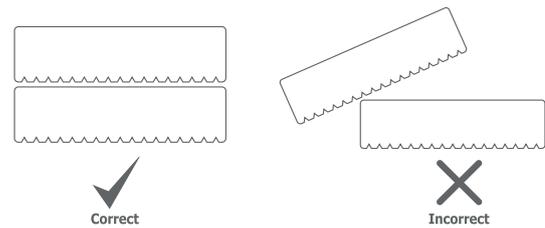
Ekodeck boards must be:

- Supported at least every 600mm on a level plane.
- Laid flat especially during transportation and never at an angle.
- Never be dropped or 'dumped' when unloading.
- Stored on a flat, dry surface and at least 100mm off the ground.
- Covered until it is time to use them for installation.

Handling



Storage



CLEANING AFTER INSTALLATION

Immediately after installation you must thoroughly wash your Ekodeck. This step is necessary to remove excess sanding dust leftover from our finishing process.

Scrub the deck in the direction of the grain with hot water mixed with a mild solution of sugar soap using a stiff bristle brush/broom. Wash down thoroughly with a high-pressure washer or a garden hose with a fan spray nozzle. Squeegee off the water and mop any wet areas.



The use of a pressure washer greater than 1,500 PSI and/or applied closer than 30cm from the decking surface could damage the deck. Do not use dirt blaster type nozzles.

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