



Ekodeck® Decking

Flame Fighter / Installation Guide



No oiling, staining
or sealing



Tested & built
to last longer

25^{YRS}

Up to 25-year
warranty



ekodeck.com.au

Ekodeck® Decking / Flame Fighter

INSTALLATION GUIDE

Read this first

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

Warnings

1. Ekodeck Decking is a pre-finished product, use care when storing, handling and installing to avoid damage.
2. It is the sole responsibility of the homeowner, contractor or the installer to determine the specific requirements, effectiveness, suitability and safety with regard to any application or use of Ekodeck products.
3. Ekodeck Decking is not designed to be a freestanding product. It must be installed safely and correctly fixed down to a substructure.
4. The substructure must comply with all the relevant regulations and aspects of the Building Code of Australia.
5. Ekodeck Decking should not:
 - A. Be used in a substructure application
 - B. Be applied directly to a solid surface such as concrete
 - C. Have a cantilever greater than 50mm
6. Any single piece of Ekodeck Decking must be installed over at least 2 spans (i.e. 3 joists) to keep within the structural load bearing limits of its design.
7. Ekodeck Decking must have sufficient gaps provided between boards and at joins and edges to allow for proper thermal movement and ventilation.

Important information



Ekodeck Flame Fighter has been tested in accordance with AS1530.8.1:2018 and AS1530.4:2014 to achieve a BAL-29 rating. Ekodeck Flame Fighter can be used in bushfire prone areas that have a bushfire attack level (BAL) of BAL-LOW, BAL-12.5, BAL-19 and BAL-29. Please ensure the substructure has been constructed as per AS3959:2009 requirements to ensure compliance. It is highly recommended that a copy of AS3959:2009 be obtained prior to construction in bushfire-prone areas.



Static electricity

All co-extruded composite decking, including Ekodeck Designer Series can, under certain conditions, exhibit build-up of static electricity.

Low humidity and dry environmental conditions are the biggest contributing factors of static electricity build-up. Other factors include, but are not limited to, subframe materials, earthing and/or balustrading.

This phenomenon may be reduced by using an anti-static spray (such as ACL Staticide). These products are water based and may require additional applications after rain or other weather conditions. Anti-static mats or insulating touch points such as balustrades or door handles may also assist.

Generally, the static build-up tends to reduce over time as the boards wear in. Ekodeck does not warrant against static build-up in Designer Series boards.

Safety

Always use proper protective clothing and safety equipment.

Ekodeck Decking boards are heavier than traditional timber. Always exercise precaution and care when lifting.

Surface protection

It is recommended to use surface protection on furniture and objects to avoid scratching or marking.

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Storage & handling

Ekodeck Decking 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.
- Covered until it is time to use them for installation.



Carry this
side up

Install either side up



Natural variances & colour

Ekodeck Decking is made by combining reclaimed timber with a mix of new and recycled plastics. It is designed to have a variation of colour and tone from one board/batch to another.



It is necessary to lay out your boards to ensure you have an even mix of both light and dark tones across the deck prior to cutting or installing to avoid large blocks of single tones. Boards cannot be exchanged or returned after they have been cut. If you do not accept the colour/finish of the board, do not cut or install it.



Ekodeck Decking boards 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.



Due to the fire retardant additive in Ekodeck Flame Fighter boards, the colour may slightly darken over time with exposure to UV. This is to be expected and is not considered a product fault.



Slip rating

Ekodeck Decking boards are supplied with a certified anti-slip rating as per AS4586:2013. Over time, dependent on traffic, environment and other external factors, the surface may wear. It is the responsibility of the owner to periodically test the boards to ensure anti-slip rating requirements are being met.

Pressure washing

Do not use a pressure washer on Flame Fighter decking boards. The use of a high-pressure washer could cause irreparable damage to your deck.

Gaps & span

	Uniformly Distributed Actions	Concentrated Actions	Centre-to-centre joist spacing
Residential*	1.5kPa	1.8kN	450mm
Residential stairs & landings*	2.0kPa	2.7kN	400mm
Commercial*	2.0kPa	2.7kN	400mm
Min. ground clearance (with adequate drainage)			40mm
Min. ground clearance (without adequate drainage)			90mm
Min. side-to-side gap			Auto-spaced by clip
Recommended end gap			Refer to Expansion Gaps table
Edge Boards			Should be fully supported

*As per AS/NZS 1170.1. Visit ekodeck.com.au for engineering and compliance certificates and for more information on spans, loads and Residential and Commercial applications.

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Ventilation

The clearance from the ground must be no less than 40mm with drainage and 90mm without drainage.

However, if any part of the NCC 2022 Amdt 2 or Section 6.2 of the ABCB Housing Provisions specify a greater distance for certain conditions, the specified clearance must be adhered to accordingly.

Cutting

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

Where possible, delay any trimming of length until all boards are fully fastened and trim at the same time to achieve a uniform length for all boards across your deck.

Thermal expansion & 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 during installation of your Ekodeck Decking.

For decks up to 5.4m in length we recommend running full length boards.

For decks longer than 5.4m we recommend the use of breaker boards.

Expansion gaps

It is important to take Thermal Expansion & Contraction into account when gapping your boards.

The below table can be used as a guide when discerning the appropriate gap (in mm) to leave at each end of your board, depending on board length and ambient temperature during installation.

		Ambient temperature during installation (°C)			
		10°C	20°C	30°C	40°C
Board length (m)	1m	2mm	1mm	1mm	1mm
	2m	2mm	1mm	1mm	1mm
	3m	2mm	1mm	1mm	1mm
	4m	3mm	2mm	1mm	1mm
	5.4m	3mm	2mm	1mm	1mm

e.g. If temperature during installation is 20°C, the recommended end gap for a 5.4m board is 2mm.

Guidelines to best manage gaps

- During installation, if the board is warm to the touch or has been sitting in full sun (i.e. hotter than ambient temperature) we advise to reduce the end gap.
- Ensure you leave a sufficient gap to solid structures, posts or walls to allow for expansion/contraction of Ekodeck and avoid damage to the boards or surroundings.
- Allow the boards to acclimatise to your site conditions. This allows your Ekodeck to adapt to the ambient heat typical of your location.
- For each section of decking, leave your boards overlength. Fasten them down using Quickfix, then trim to length using a circular saw and straight edge to ensure all boards are the same length. This is best done after the boards have settled. (i.e. The following day after installation)

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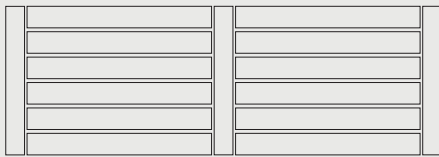
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Breaker boards & picture framing

The use of breaker boards or picture framing your deck is strongly recommended.

Picture framing ensures a clean finish of your deck when using Ekodeck Decking boards.

Breaker boards enable a single-board-length installation method, which helps manage the expansion and contraction characteristics of composite boards.



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



Example of a picture frame design (recommended):

Mitre joints

When using a picture frame design on your deck, the corners of your picture framing boards can meet at an angled mitre joint.

To reduce the likelihood of gaps opening, we recommend reducing the end gap suggested by the *Expansion gaps* table by 2mm.

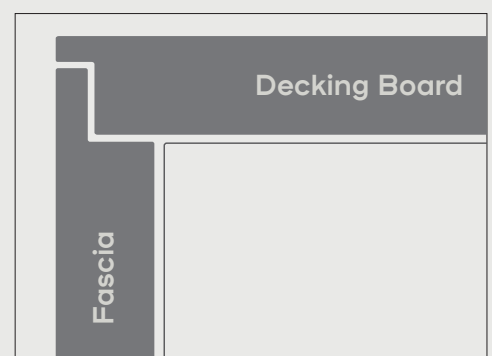
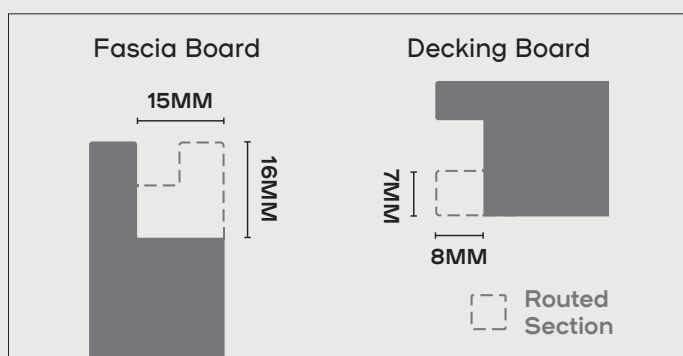
Butt joints

Due to the thermal expansion properties of Ekodeck we advise against the use of butt joints, regardless of the size of your deck.

It is difficult to ensure consistent and uniform gaps across your entire deck when using butt joints and boards of various lengths.

Edge board finishing

There are no Edge Boards for Ekodeck Flame Fighter. To make your own Edge Board route both the decking board and fascia board as below to allow them to mate up cleanly.



Edge board installation

The leading edge of the Edge Board can be fastened two ways.

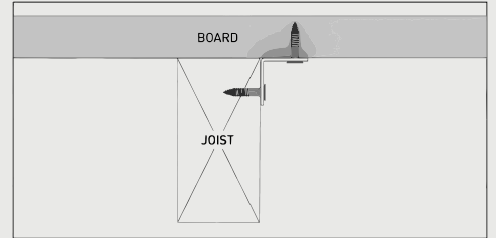
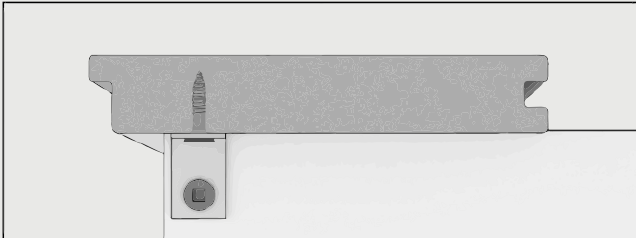
- Top fixing using a screw
- Angle bracket

If top fixing, be sure to predrill the board and countersink prior to fastening. We recommend using a 10g screw every 450mm.

If using an angle bracket, source a suitable bracket (these are a generic angle bracket and not an Ekodeck item) and secure them to the bottom of the Ekodeck board every 450mm using a suitable fastener.

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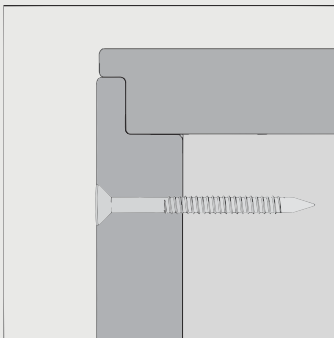
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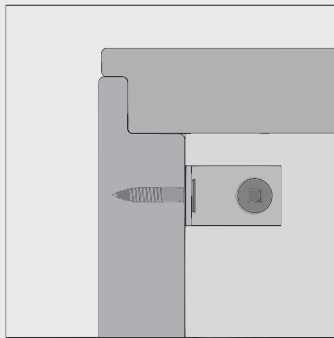
Fascia fixing options

See below various ways to fix your fascia board. Fascias should be fastened every 450mm.

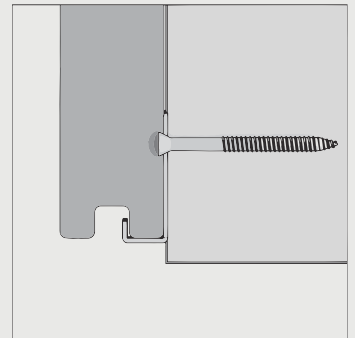
Face-fix



Angle bracket



C-Clip



Prior to cutting & installing



It is necessary to lay out your boards to ensure you have an even mix of both light and dark tones across the deck prior to cutting or installing to avoid large blocks of single tones. Boards cannot be exchanged or returned after they have been cut. If you do not accept the colour/finish of the board, do not cut or install it.



Top-fixing

Do not top-fix the entire deck, only the fascia board or where absolutely necessary.

Top-fixing the entire deck will void your warranty.

Starting from a step or edge (recommended)

For best results, we recommend starting at the edge of your deck and working back to your wall/house. This ensures you have a full board at the edge or step of your deck where it is most exposed as well as offering a wider range of options to finish and fasten the leading edge of your board and fascia.

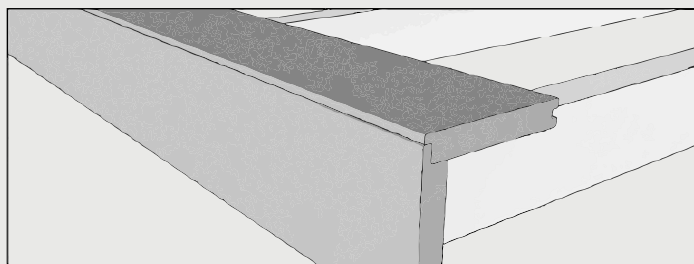
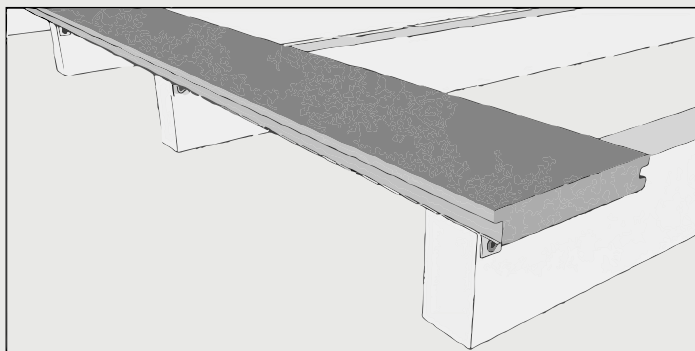
1. Finish the leading edge of your board appropriately to ensure a fascia can be installed for a clean finish. Refer to section Edge Board Finishing.
2. For a consistent finish free from screws, use angle brackets (not supplied) to fasten the leading edge of your Edge Board.

Alternatively, you can top-fix with screws. We recommend to pre-drill and countersink prior to fastening every 450mm.

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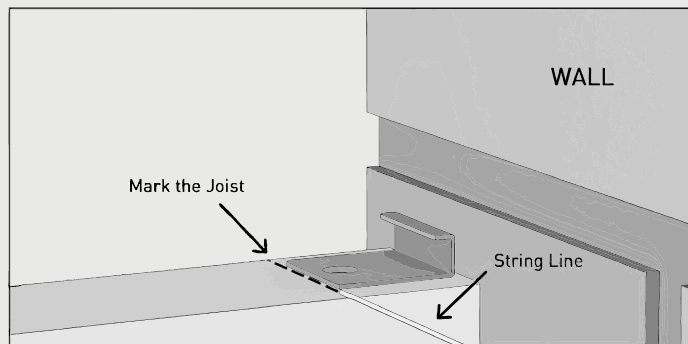
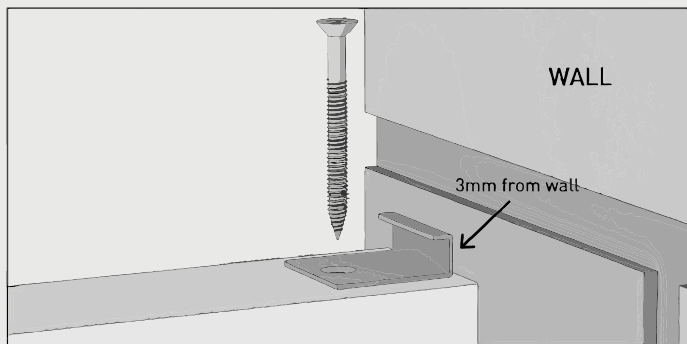
Joist material	Recommended screw
Timber	10g x 65mm 316SS countersunk screw
Metal	10g x 40mm countersunk screw suitable for metal



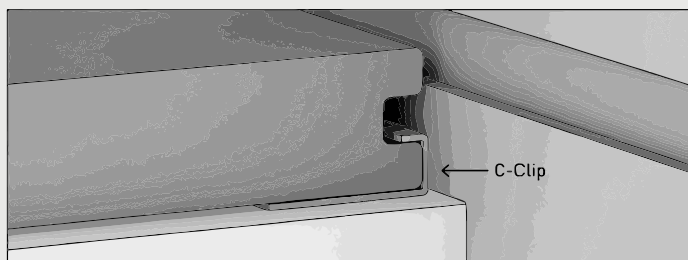
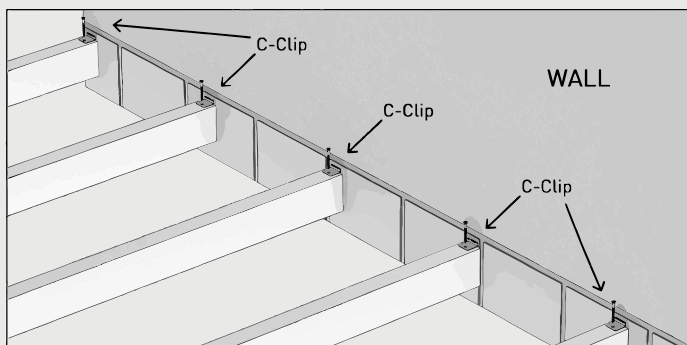
3. Consult the Fascia fixings options above and install your fascia boards if appropriate.
4. You can now begin to fasten your boards using Standard and Locking Clips - refer to Fastening Boards section

Starting from a wall

1. Position C-Clip on top of the first joist a minimum of 3mm from the wall and screw into place. Repeat on last joist.
2. Run a string or chalk line from the front edge of the C-Clip between the first and last C-Clip and mark the remaining joists.



3. With the top of the joists now marked, install C-Clips on the remaining joists. If necessary, C-Clips can be placed on every second joist. Gently push the first Ekodeck board into the C-Clips. You may need to angle the board slightly to push into the C-Clips.
4. You can now begin to fasten your boards using Standard and Locking Clips - refer to Fastening Boards section.



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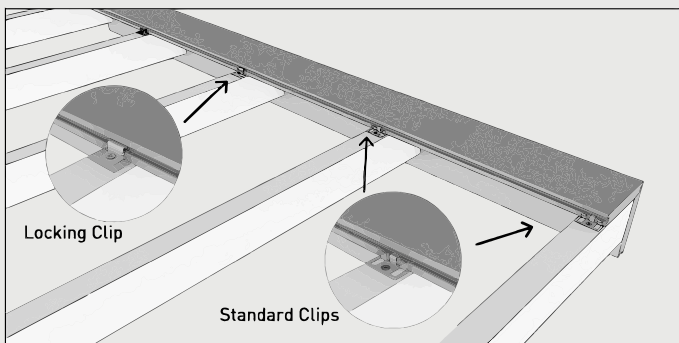
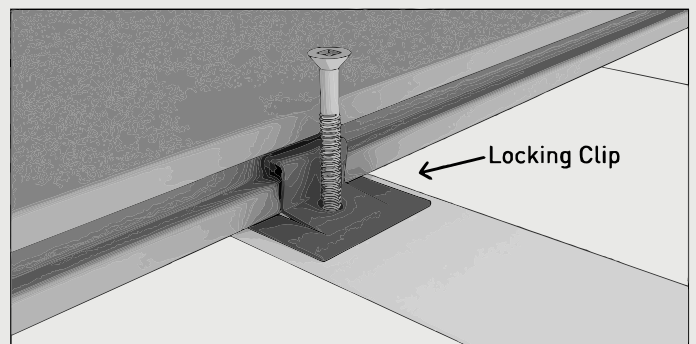
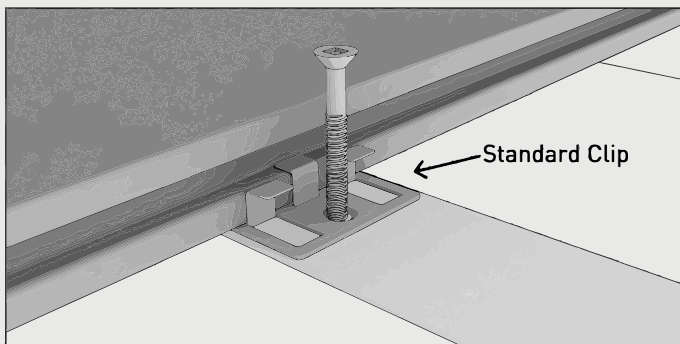
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Fastening boards

We recommend installing Ekodeck Flame Fighter using the 3mm Quickfix system if you are in a BAL rated area. Check with your local council to ensure compliance and gapping requirements prior to installation.

3mm board spacing

1. Insert Standard Clips and Locking Clip into the groove of the board. Note: you must use 1 (one) Locking Clip only per board, which is placed nearest the centre of each board. Screw down approximately 2mm to hold the clips in place.



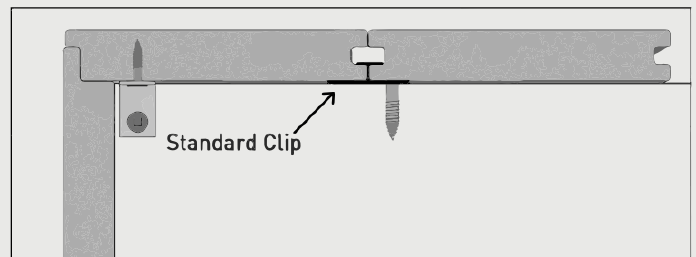
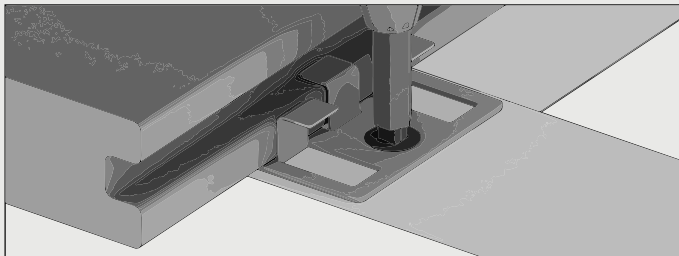
Note: If installing on hardwood joists, it is recommended to predrill your joists to avoid shearing screws. If you are shearing screws, increase your predrill size.

If you are installing on a steel frame, you may need to predrill.

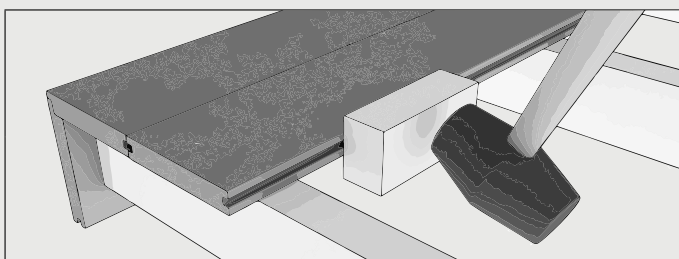
Ensure you have 1 (one) Locking Clip per board.

Failing to install a Locking Clip will allow your boards to shift and come out of alignment.

2. Screw down the clips ensuring they are tight and secure.



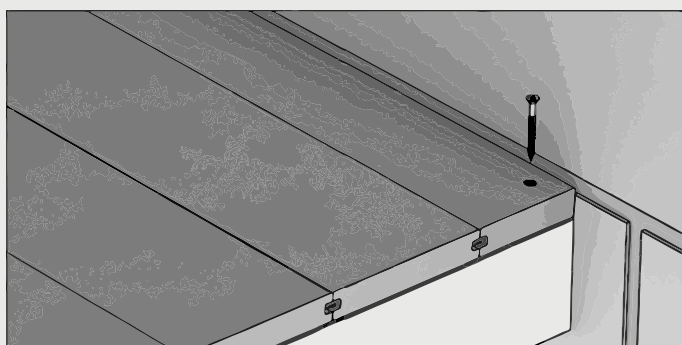
3. Push the next Ekodeck board into the clips. You may need to use a rubber mallet and block to seat the boards firmly in the clips.



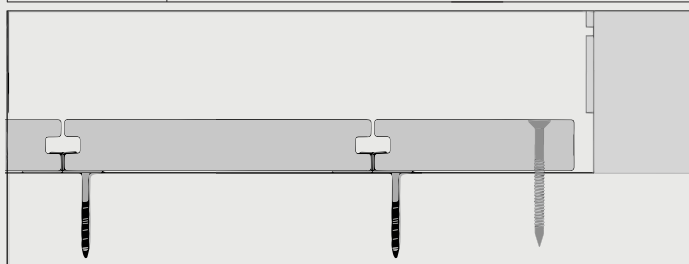
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- Repeat steps 1-3 until complete, periodically measuring out from the first board to ensure your deck is square.
- Once you reach the end of your deck, you will likely need to rip the last board down to fit. Secure the last edge of your board by top fixing. Be sure to pre-drill and countersink the board and fasten every 450mm



Joist material	Recommended screw
Timber	10g x 65mm 316SS countersunk screw
Metal	10g x 40mm countersunk screw suitable for metal

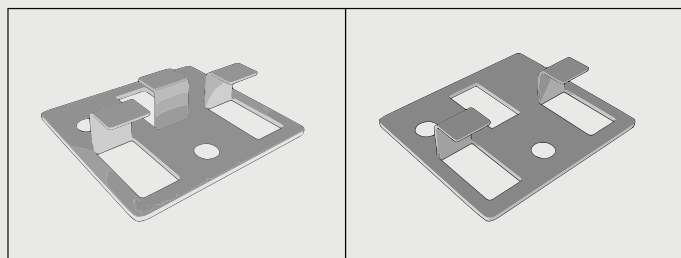


Breaker boards & picture framing - 3mm board spacing

To secure your breaker board or picture frame you can use one of two methods.

- Modifying Standard Clips to make them single sided.
- Using C-Clips.

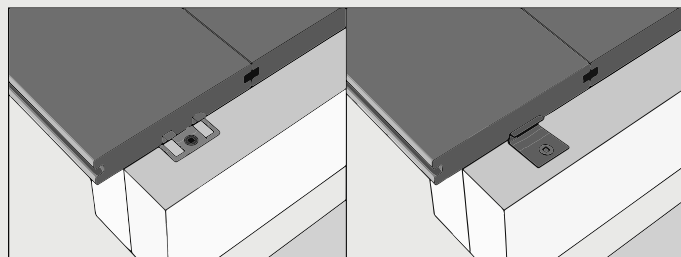
A Standard Clip can be modified by using a punch to flatten or completely remove the single tab



Standard Clip

Modified Standard Clip

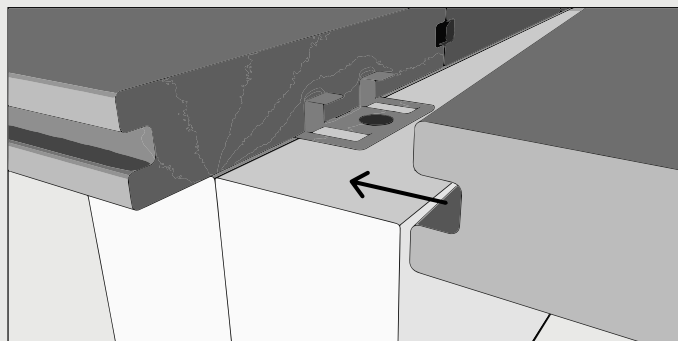
- Install clips every 450mm.



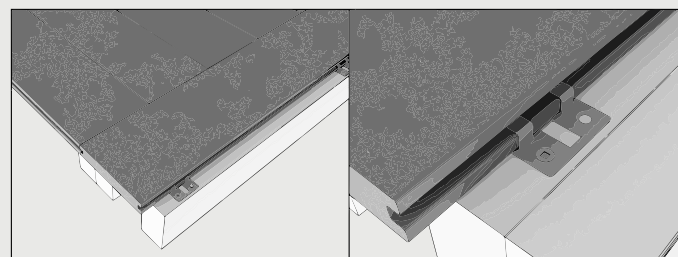
Modified Standard Clip

C-Clip

- You can now push your breaker board or picture frame board into place.

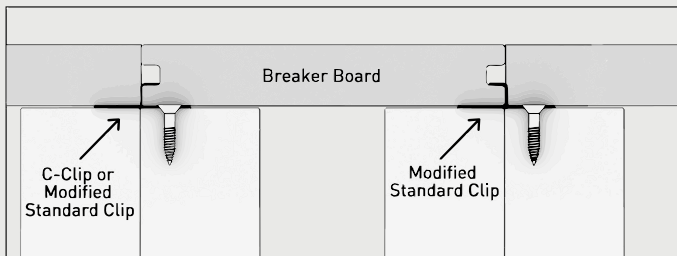


- If installing a picture frame board, secure the finishing edge of your board using brackets as seen in 'Finishing/Fascia Options.'
- If installing a breaker board and are continuing your deck, secure the second edge of your breaker board using a modified Standard Clip. Be sure to install a Locking Clip in the middle of the board.

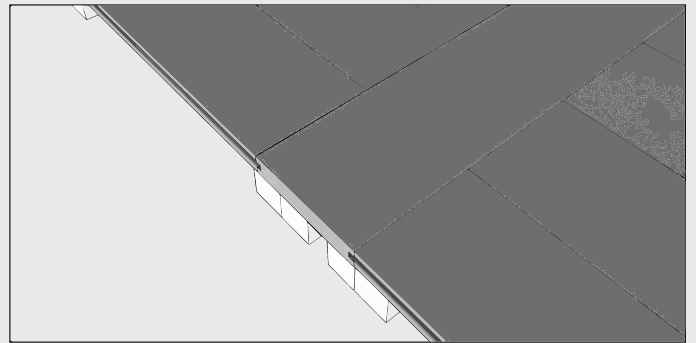


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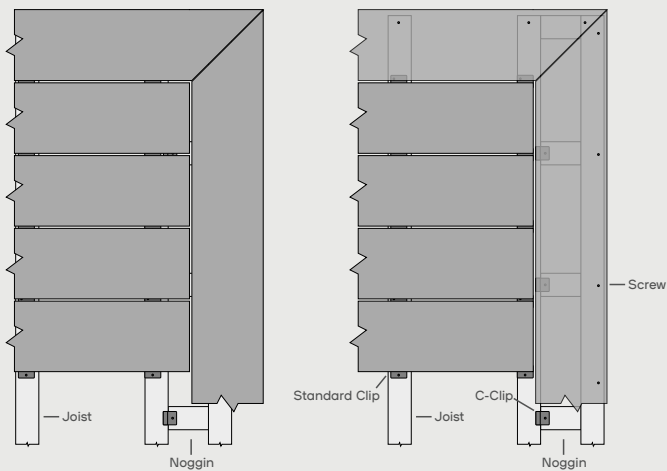
With your breaker board now installed, you can continue to lay the rest of your deck.



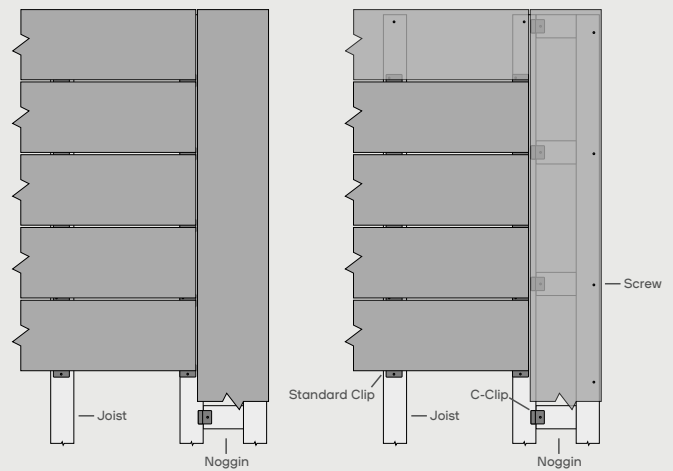
Finishing Options

There are a variety of designs to choose from when it comes to finishing the corners and edges of your Ekodeck Flame Fighter deck.

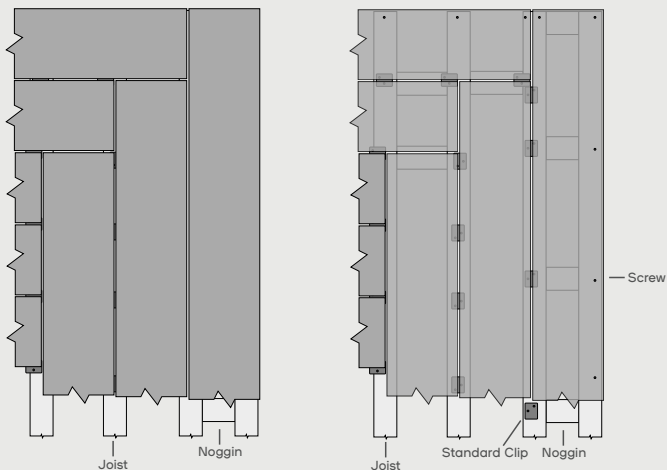
Picture framing



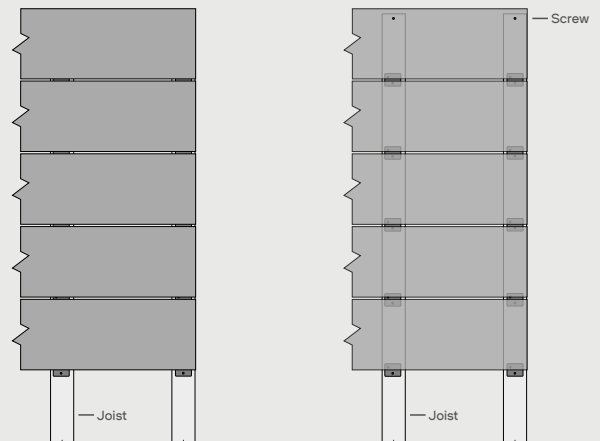
Single border



Herringbone detail



No framing



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Cleaning

It is recommended to clean your deck immediately after installation and periodically as you see fit:

1. Mop the deck with hot water and dishwashing liquid using a soft broom or mop.
2. Rinse your deck - a garden hose is recommended.

Cleaning requirements will vary depending on product use, surrounding environment and weather exposure. We recommend a General Clean is performed at least annually.

Foreign substance stains should be cleaned immediately.

Refer to our Care & Maintenance guide for more information.

Weathering

Ekodeck is a colour-fast and UV-stabilised product that will not lose its colour.

Like any outdoor building material, there may be a slight colour shift upon initial exposure to UV. This may be noticeable in areas where pots, mats or other furniture has been left for extended periods of time. This is to be expected and is not a product fault.