



Ekodeck® Castellated Panel

Product Manual



No oiling, staining
or sealing



UV Stabilised -
Won't fade to grey



Won't splinter,
cup or twist

ekodeck.com.au

Ekodeck® Castellated Panel

CONTENTS

Profiles & Colours	1
Product Information	2-3
Warnings	2
Natural Variances & Colour	2
Thermal Expansion & Contraction	3
Installation	4-6
Technical Specifications	7
Care & Maintenance	8

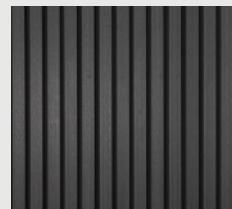
Ekodeck® Castellated Panel

PROFILES & COLOURS

Colours



Hazelwood



Carbon



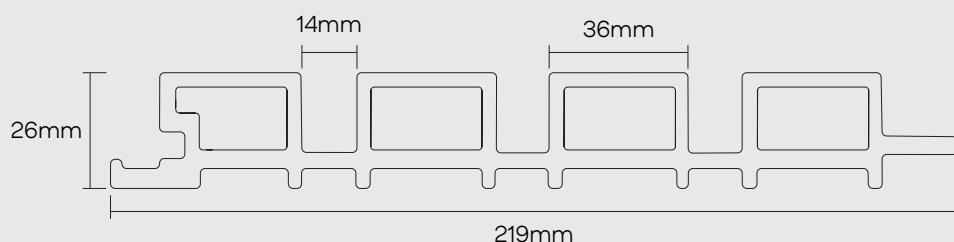
Blonde Oak



Lighthouse

Castellated Panels

COLOUR	SIZE	ITEM NO	PROFILE
Hazelwood	219x26x3600mm	0488950	A line drawing of the Hazelwood profile, showing a 26mm wide panel with a 14mm wide central raised section and a 36mm wide side flange.
Carbon	219x26x3600mm	0488949	A line drawing of the Carbon profile, showing a 26mm wide panel with a 14mm wide central raised section and a 36mm wide side flange.
Blonde Oak	219x26x3600mm	0647990	A line drawing of the Blonde Oak profile, showing a 26mm wide panel with a 14mm wide central raised section and a 36mm wide side flange.
Lighthouse	219x26x3600mm	0925128	A line drawing of the Lighthouse profile, showing a 26mm wide panel with a 14mm wide central raised section and a 36mm wide side flange.



Ekodeck® Castellated Panel

PRODUCT INFORMATION

Read this first

Being a composite product, Ekodeck® Castellated Panels behave and have different characteristics to timber. To achieve a safe and long lasting Ekodeck® Castellated Panel installation, it is important to read the following guide in full.

Warnings

1. 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.
2. Ekodeck® Castellated Panels are not designed to be a freestanding product. They must be installed safely and correctly to fixed posts/rails.
3. The posts/rails must comply with all the relevant regulations and aspects of the Building Code of Australia. All supports must be securely anchored to the ground (not floating).
4. Ekodeck® Castellated Panels must be mechanically fastened to each support. Any single piece of Ekodeck® Castellated Panel must be installed over at least 2 spans (i.e. 3 posts/rails).
5. Ekodeck® Castellated Panels should not:
 - A. Be used as a structural or load bearing member.
 - B. Be used in any potentially stressed situation such as a security or safety balustrade or decking.
 - C. Be applied directly to a solid surface such as concrete or brick walls.



Carry this side up



Install this side

Safety

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

Natural variances & colour

Ekodeck® Castellated Panels are made by combining reclaimed timber with a mix of new and recycled plastics. They are designed to have a variation of colour and tone from one panel/batch to another.



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



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

Cutting

For best results, use hardwood blades.

When using a drop saw we recommend a 60-80 tooth blade for cutting.

For best results, it is recommended to trim all panels to length once fully fastened using a straight edge and circular saw. This ensures all panels are the same length for a clean finish.

Ekodeck® Castellated Panel

PRODUCT INFORMATION

Thermal 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 consideration during installation of your Ekodeck® Castellated Panels.

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

- **Climate:** Installing in the peak of summer or winter or large changes in temperature between day and night.
- **Panel position:** If the panels are in direct sun light or part shade etc.
- **Panel length:** The longer the panels, the more they will expand and contract.
- **Fully fastened panels:** You will notice less movement in the panels once they are fully installed/fastened to the supports.

Expansion gaps

It is important to take Thermal Expansion & Contraction into account when installing your panels.

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

		Ambient temperature during installation (°C)			
		10°C	20°C	30°C	40°C
Panel length (m)	1m	2mm	1mm	1mm	1mm
	2m	2mm	2mm	1mm	1mm
	3m	3mm	3mm	2mm	1mm
	3.6m	4mm	3mm	3mm	1mm

e.g. If temperature during installation is 20°C, the recommended end gap for a 3.6m panel is 3mm.

General installation requirements

Allow the panels to acclimatise to your site conditions. This allows your Ekodeck® Castellated Panels to adapt to the ambient heat typical of your location.

Thermal deflection

Due to the nature of polymers this product may exhibit a slight thermal deflection between supports.

This can be caused by heat exposure to one side of a panel as opposed to the other.

The extent to which this occurs is dependent on several factors including climate and the direction which the panels are facing the sun.

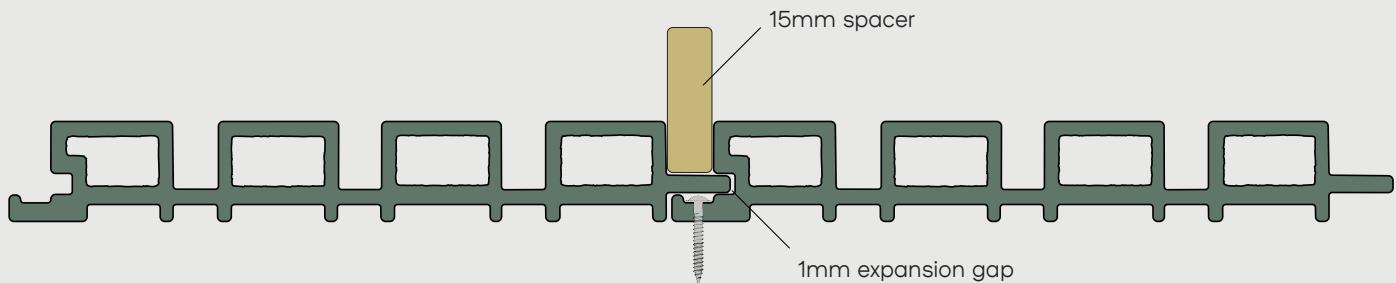
This phenomenon is not considered a product fault.

Ekodeck® Castellated Panel

INSTALLATION

Installation & fastening

When installing Ekodeck Castellated Panels, it is recommended to use a 15mm spacer between panels to ensure there is an expansion gap, see diagram below.



Installation requirements

Centre-to-centre support spacing (max)* 600mm

Maximum unsupported overhang 300mm

Fixing Ekodeck® Castellated Panels to timber supports

Exterior-grade 10g screws of adequate length, with a flat-bottom head (ie. wafer head, pan head)

Pre-drilling an oversized clearance hole, larger than the shank of the screw in the panels is imperative.

Screw off each panel every 600mm.

Nailing is not recommended.

Fixing Ekodeck® Castellated Panels to steel supports

High quality 10g screws that are appropriate for steel, with a flat-bottom head (ie. wafer head, pan head)

Pre-drilling an oversized clearance hole, larger than the shank of the screw in the panels is imperative.

Screw off each panel every 600mm.

Wing Tek screws are not recommended.

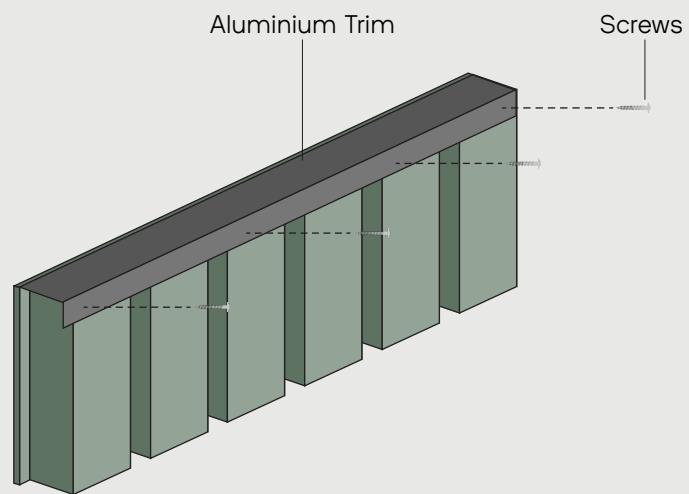
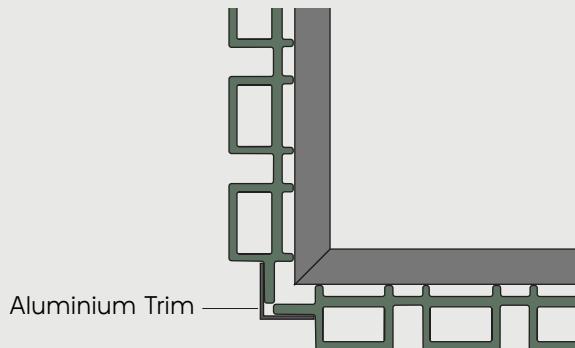
Ekodeck® Castellated Panel

INSTALLATION

Finishing Trims

To finish off the corner, edge or top of your new Ekodeck® Castellated Panels, we recommend using one of the below aluminium trims, which can be purchased from your local Bunnings Warehouse.

For best results, mechanically fasten with suitable screws.



Aluminium Trim Options (all available from Bunnings)

Size	Length	Colour	Item Number	Profile
25x12x1.6mm	1m	Silver	1138107	
		Black	0427711	
	3m	Silver	1138092	
		Black	0427763	
25x20x1.6mm	1m	Silver	1067831	
		Brushed Silver	0427734	
		Black	0427772	
	3m	White	0427720	
		Silver	1079501	
		Black	0134684	

Ekodeck® Castellated Panel

INSTALLATION

Paint Colour Matches

Castellated Panel Colour	Item Number	Paint Colour	Spray Can
 Hazelwood	0488950	 Mission Brown	✓
 Carbon	0488949	 Black	✓
 Blonde Oak	0647990	 Classic Cream	✓
 Lighthouse	0925128	 Surfmist	✓

Ekodeck® Castellated Panel

TECHNICAL SPECIFICATIONS

TEST	STANDARD	RESULT
Weight	-	10.3kg per 3.6m length / 2.86kg/m / 13.06kg/m ²
Burning Characteristics	1. AS/NZS 1530.3:1999 2. AS ISO 9239.1-2003	1. Ignition Time (mins): NI Flame propagation time (s): NA Heat release integral (KJ/m ²): NA Ignitability Index (0-20): 0 Spread of Flame Index (0-10): 0 Heat Evolved Index (0-10): 0 Smoke Developed Index (0-10): 7 2. Critical Heat Flux: 2.1kW/m ² Smoke Production: 20.6%/minute

Ekodeck® Castellated Panel

CARE & MAINTENANCE

Overview

Ekodeck® Castellated Panels are not a self cleaning product and will need to be washed down periodically, especially in undercover or alfresco areas.

Ekodeck® Castellated Panels perform best when exposed to the elements. Rain and UV generally degrade and wash away most stains naturally.

The amount of cleaning depends on what you consider to be acceptable.

Ekodeck® Castellated Panels are an outdoor product and like any external product, the level of cleaning depends on the surrounding environment and your level of tolerance to dirt.

This guide will give you some basic principles that will help you maintain the natural beauty of your Ekodeck® Castellated Panels.

General Clean

A **General Clean** is essential immediately after installation to remove any surface debris from installation and periodically as you see fit:

1. Wash the panels with warm water and dishwashing liquid using a soft-bristled brush.
2. Rinse your panels off with a garden hose.

We recommend a **General Clean** is performed at least annually.

Do not pressure wash your Ekodeck® Castellated Panels as this may cause irreparable damage.

Surface finish & fibres

During manufacturing, Ekodeck® panels are sanded to give them a natural, textured look and feel. Residual fibres/hairs may be present on the panels because of this.

Excessive scrubbing or pressure washing may exacerbate these fibres. These will wear off over time and are not considered a product fault.