

## Fixing Instructions for ModWood Flame Shield®

### Storage and handling

Store ModWood in a flat, dry area under roof and off the ground. Always carry ModWood on edge.

### Ventilation

Good ventilation for your deck is essential. Check our chart for ground clearance information. Do not prevent airflow by sealing off deck ends, for example with garden beds, trees or solid objects.

### Installation

Fixings must not be closer than 15mm from the end of the board and do not skew fasten. Double fix on each joist. Fasten 20mm from outside edge of the board. When butt joining top fix boards it is recommended to have 45mm joists. Stagger joints –do not create a seam of joints.

### Screw fixing

Pre-drilling and countersinking is essential when fixing with screws. Drill-bits used must be at least the outside diameter of the screw thread (preferably slightly oversize). As a minimum, galvanised coated screws are recommended for low corrosion areas. Use stainless steel screws for high corrosion areas. Screw down with low to medium torque. Do not 'overdrive' screws, particularly near the ends of the boards. Screws should finish 'flush' with top of board.

### Nail fixing

Pre-drill with a drill-bit large enough to provide a slight clearance on the shank, then fix with a dome-head galvanised nail. Do not punch the nail heads under the surface. In high corrosion areas, we recommend stainless steel decking nails (pre-drilling a hole with clearance is still required).

### Nail Guns

As with all decking, the preferred methods of fixing are drill and screw, or drill and nail. Should you decide to use a nail gun, you need to satisfy yourself that nail penetration and retention is satisfactory. Such tests should be carried out prior to installation. The preferred nail gun is the Paslode Duo-Fast CNP 65 Coil Nailer. Use dome head stainless steel decking nails. Double fix on each joist. We do not recommend nail guns for use on decking greater than 23mm thickness, or for use on steel joists.

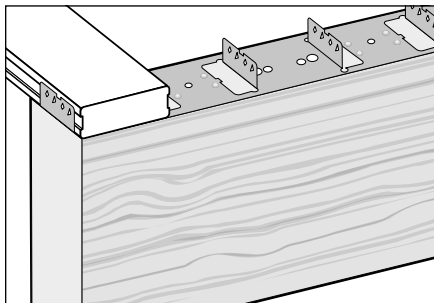
**When fixing boards by nail gun, pre-drilling and hand nailing is essential for each fastener within 50mm of the end of a board.**

## Concealed Fixing with ModWood

**KlevaKlip** is the preferred method of using concealed fixing with ModWood. For all information on KlevaKlip, please contact: [www.klevaklip.com.au](http://www.klevaklip.com.au)

Please note that when using concealed fixing products, it is still important to ensure that the ModWood standard gap spacings for side-by-side, butt-joints, and end spacings are still strictly adhered to.

**Important** please check you use the correct model KlevaKlip to fit the chosen ModWood board. Refer overleaf.



\* Use only dome-head nails from "coil-nail" gun. Pre-drill and hand nail when within 50mm of end of board. Not our preferred fixing method.

\* Do not use nail gun within 50mm of end of board. \*\* Depending on concentrated load (kN) this may be reduced. Contact ModWood directly for deflection calculation.

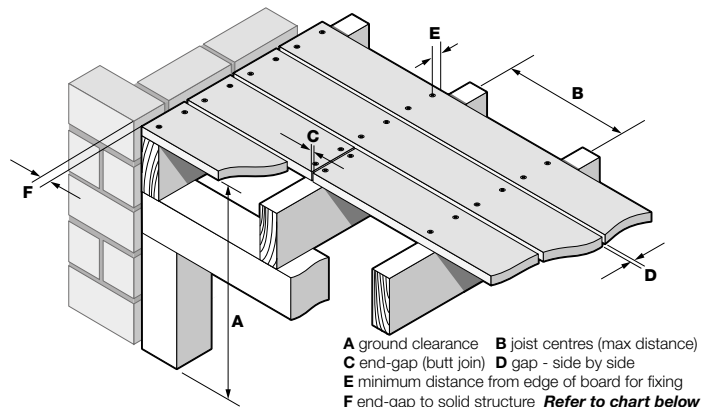
**In all cases, when screwing down do not overdrive screws. Fix with low to medium torque. Do not punch nail-heads under surface of board. Fixing too close to the end of the board will cause splitting. DO NOT fix within 15mm of end of board.**

*Flame Shield*, is certified to AS1530.8.1-2007 with a BAL-40 rating. *Flame Shield* can be used in bushfire prone areas that have a bushfire attack level (BAL) up to and including BAL-40 (AS 3959-2009). *Flame Shield* certification allows for the sub-floor space to be either enclosed or un-enclosed. (Please refer to ModWood ventilation requirements). *Flame Shield* boards must not overhang or be cantilevered past the joist at any point.

The sub-frame joists and bearers need to be constructed from non-combustible materials or one of the bushfire-resisting timbers (refer to AS3959-2009 see Appendix F) which as at December 2011 includes Spotted Gum, River Red Gum, Blackbutt, Silvertop Ash, Red Ironbark, Merbau, Turpentine. With this construction system, *Flame Shield* has been certified to comply with AS1530.8.1 Section 8 Construction for Bushfire Attack Level 40 (BAL-40).

*Flame Shield* is manufactured to R11 (AS/NZS 4586:2013).

*Flame Shield* has an ink jet message repeated at approx. 1000 mm intervals along its edge "Flame Shield BAL-40, AS1530.8.1". This message should be sighted on each board **prior** to installation. It is also highly recommended that a copy of AS3959-2009 be obtained **prior** to construction in bushfire-prone areas. A copy of this standard can be purchased from SAI Global.



## ModWood Fixing Specifications

Decking width (mm)	
137x23mm	
<b>Dimensions</b>	
<b>A</b> minimum ground clearance	300
<b>A</b> minimum clearance over concrete	50
<b>B</b> joist centres (max distance)	450**
<b>C</b> minimum end-gap (butt joint)	2
<b>D</b> minimum gap - side by side	4
<b>E</b> minimum distance from edge of board for fixing	20
<b>F</b> minimum end-gap to solid structure	4
screws (pre-drill and countersink)	yes
dome-head nails (pre drill)	yes
nail gun acceptability *	yes
suitability for fixing to steel substructure	refer to website
fixing over concrete	refer to website
suitability for commercial applications	yes

## ModWood thermal expansion properties – fixing tip

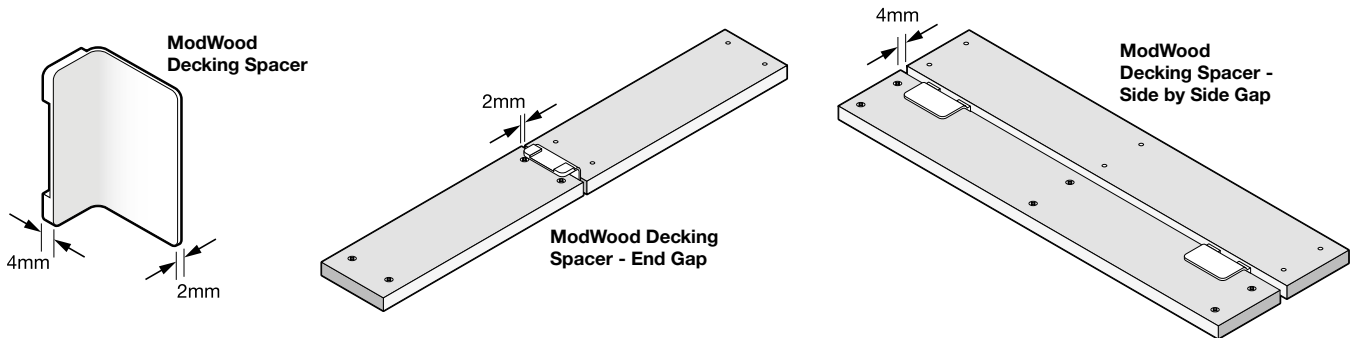
The temperature of a ModWood board sitting in full sun on a warm to hot day for a length of time is approx. 20-25°C warmer than the ambient air temperature. As ModWood expands in heat and sun, to avoid building stress into your deck and having possible lengthways shrinkage, it is best

to fix your decking boards when the ambient temperature is less than 25°C and when the boards are not sitting in full sun (see 'coefficient of thermal linear expansion' on our website).

## ModWood Decking Spacers

ModWood decking spacers, as seen below, have been developed to make your installation easier, and in line with ModWood fixing instructions. Note: Every pack of ModWood comes with 10 free spacers

(used as strapping holders on the corners of full packs). Extra spacers are available from your local ModWood retailer, or by contacting the ModWood distributor in your state.



## Typical Fastenings used with ModWood

### Up to 23mm thickness boards

Fixing to timber - 8 gauge x 50mm countersunk head screws  
- 2.8mm x 50mm dome head twist shank nails

#### Nail guns

- C2.5 x 52 Dome R SS Coil Nails  
(Ring shank for softwood joists)
- C2.5 x 52 Dome S SS Coil Nails  
(Screw shank for hardwood joists)

Fixing to steel - 10 gauge x 40mm self tapping 'tek' screws

### General

- **Pre-drilling and countersinking is essential**
- **Fixing too close to board end will cause splitting – no closer than 15mm and no closer than 20mm from edge. Do not overdrive fasteners**
- The pilot hole drilled must be slightly larger than the 'outside diameter' of the screw thread or nail shank

- Fasteners must be installed perpendicular to the board face, ie. do not skew fix
- Screw down with low torque, take particular care at ends of the boards
- Ensure the head of the screw finishes flush with board surface
- Fasteners in low corrosion areas should have galvanised coating or equivalent. In high corrosion areas stainless steel fasteners are recommended.
- Use only fixings which comply with Australian Standards
- ModWood must not be used as part of the frame or used as a structural element.
- 12 gauge screws may be used on 137mm boards only. Fasteners must not be located closer than 20mm from board ends. This will necessitate double joists or laminating a block on those joists where end butt joins will be located

## Concealed Fixing with KlevaKlip

It is critical that the correct model of KlevaKlip is used with the chosen ModWood board. The Natural Grain Collection of solid boards have grooves on each edge and suit the following KlevaKlip models. Note: Stainless steel should be used around pools and locations within 1km of salt water.



**137mm with groove on edge  
Non Powder Coated**

KT137G Top Fix Clip Galvanised  
KT137S Top Fix Clip S/Steel

**137mm with groove on edge  
Powder Coated**

KT137GPC Top Fix Clip Galvanised

**Please refer to  
[www.klevaklip.com.au](http://www.klevaklip.com.au)  
for fixing details and  
adhesive instructions.**

## ModWood Decking Fixing Instructions over concrete

Refer to website for specific instructions on decking applications over concrete.