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## Smartdeck Thermory Decking Install Guide

Make sure to read the whole document before beginning install. Don't just read the summary – the detail is important!

Smartdeck Thermory ash decking comes in two profiles – 20 x 112mm, smooth both sides with stainless steel (B1) fasteners and 20 x 132mm, brushed one side with black rubber (Senofix) fasteners. The brushed side holds pigment better if colour maintenance is desired.

Smartdeck Thermory spruce decking comes in 26 x 160mm. Decking is milled with **end-match joins** and can interlock mid span, removing the need to measure and dock ends at every join. Thermory ash decking and spruce decking are equivalent to Class 1 timbers in durability, reasonably resistant to termites (but require standard termite prevention measures in Australia), and remain very stable due to a decreased capacity to absorb moisture.

Smartdeck Thermory is 100% solid timber and can be drilled, cut, sanded and worked as per normal hardwood material. Use sharp blades and drill bits to reduce the potential for chipping and splitting of the timber.

NOTE: Pre-drilling and countersinking is necessary if fixing nails or screws directly into Thermory timbers to minimise the potential for splitting.

Maximum joist spacing of 450mm centers on timber or steel joists. Recommended joist spacing is 400mm for commercial projects.

### Tools required

- Screw gun with appropriate bits
- Drill with countersink bit, eg 'Smartbit'
- Drop saw, or circular saw or hand saw with guide
- Rubber mallet
- Clamps (if using the rapid Senofix system)
- Penetrating oil (Cutek®Extreme recommended) and brush

We DO NOT recommend the use of any waterbased deck coating product, or oil based products which form a film on the surface and will eventually crack and peel, or any oils which are based on natural vegetable oils as these are a source of food for mould.

## Summary

### Best practice (recommended):

**Check** all boards before install. Boards are graded to have one best side, though most are equally defect free on both sides, and it can be hard to chose the best side. Things to look for are shakes (thin leaves of wood lifting), and splits. Ensure the best side is installed face up.

### For best results.

**Pre-oil** all boards on all sides before install, using Cutek®Extreme clear. Coat every cut end thoroughly with Cutek®Extreme. Apply a second coat to the top surface after install.

A pre-coating service is available if required.

Joist spacing maximum 450 centres.

Area needs to be well draining, with at least 100mm spacing between ground and decking.

Use standard termite protection measures.

Pre-drill and countersink if top-fixing. Stainless steel 7 or 8 gauge 40–50mm trim head screws are recommended, a minimum of 20mm from the edge. 1–2 screws for each stainless steel clip is sufficient, 1 screw for each Senofix clip. The first board needs to be top-fixed along the leading edge, with a spacer below to match the clip spacing between joist and substructure.



B1 clips use 1 or 2x 6 gauge 20mm stainless steel screws

Senofix clips use 1 x 7 gauge 50mm trim head screws

With the B1 clips, tap a clip into the groove in the side of the first board with a rubber mallet or hammer at every joist, then screw off with 1 or 2x 6 gauge 20mm stainless steel screws. Tap the next board into the clips with a rubber mallet to give a 4mm spacing, then insert clips at each joist and continue.

With the Senofix clip, best results and fastest install speed is achieved using the SIGHA clamp (see the pic on the next page). After the first board is installed, up to eight boards can be laid out at a time with clips between, then clamped to give a maximum 6mm space. Screwing the clips down can then be done very quickly, saving considerable time.

On completion, clean the deck and apply another coat of oil to the surface.



### **Board spacing, moisture and ventilation**

Smartdeck Thermory decking is factory milled for use with fixing systems which don't require top fixing by nails or screws. The 112mm wide board will have a 4mm gap and the 132mm wide board has a 6mm gap between edges to provide adequate ventilation.

**Top fixing** of Thermory decking can be carried out using 8 gauge trim head screws, after pre-drilling and countersinking. Pre-drilling is needed in order to avoid cracking, particularly for Thermory ash. The pilot hole should be a minimum 1 mm larger in diameter than the screw itself, to allow necessary movement and prevent splits.

Boards must be gapped at edges with a minimum 4mm for 112mm boards and 5mm for 132mm boards to ensure adequate ventilation and drainage of moisture.

### **Site layout considerations**

In damper climates and low to the ground install, the under deck space must be designed to ensure water can drain to allow the ground to dry out quickly. If in doubt, please contact our technical department for further consultation, as there may be circumstances where we would not recommend installing wood.

### **Maintenance and ongoing care**

For best long term performance and simple ongoing care, we recommend pre-oiling Thermory timbers on all sides of the board **prior to install** using CUTTEK®Extreme which is a commercial grade stabilising oil. Boards can be easily pre-oiled, wet stacked and set aside ready for install. Wood scientists agree that timbers coated with oil on all sides prior to install offer better protection long term, increasing the service life of the timber.

It is standard practice that timber decks are cleaned and coated after install which will protect and enhance the look of the grain.

## **What to expect**

While Thermory is a high performance timber and very stable, it is still a natural material and will be subject to weathering over time which includes lightening, fading and eventual silvering. This process will take place much faster in full direct weather exposed settings. Many customers desire silvered timbers which can look natural and beautiful, but for those wanting to reduce the potential for silvering, we recommend ongoing care with CUTEK®Extreme in clear or with an added Colourtone. Using just the clear oil alone will allow the wood to naturally lighten to a natural hue and silvering will be significantly delayed. The natural look of Thermory can easily be restored with a simple clean and further coat of CUTEK®Extreme clear oil. Where maintenance of the rich dark tone of Thermory ash is desirable, use of a Colourtone (Chestnut) is recommended. The added pigment will enhance the natural Thermory colour for longer and ongoing care is a simple clean and further application as required (generally twice in the first year, in full exposure, and then annually).

Being a natural material, some degree of surface checking should also be expected. CUTEK®Extreme will minimise checking and end splitting, while increasing the life of the wood. We want all our customers to have a great experience using these beautiful timbers, including easy maintenance that provides long term protection.

NOTE: Decking surfaces that are installed in full weather exposure and receive a high amount of foot traffic will require more ongoing care if trying to maintain the rich dark look of the Ash. Protected areas where less UV light, rain and traffic occur will retain their tone for much longer so far less care will be required.

**Low Maintenance option:** Using CUTEK®Extreme as clear oil only represents the most cost effective and low care option for ThermEX timbers long term. The clear oil will allow the Thermory to lighten and eventually silver but the protection that CUTEK®Extreme provides is still present regardless of the natural lightening of the wood hue.

### **Maintaining colour with a CUTEK Colourtone:**

Thermory Ash: Chestnut recommended

Thermory Spruce and Pine: Rustic Gold recommended

Decking should ideally receive 2 x coats with added Colourtone after install. Clean and recoat as required to maintain the desired tone. A simple broom and soapy water clean followed by 1 x thin coat is all that is required for ongoing care.

## **Damaged or defective boards**

The overall quality of Thermory timbers is outstanding but from time to time there may be a few boards that are damaged. Please DO NOT install these boards but rather place them aside and contact the company you purchased the product from for technical assistance or replacement if necessary.

## **Contact**

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