

## **Decking Installation Guidelines for Clado and other class one hardwoods when installed exposed to the elements**

Use traditional fixing and fastening methods only. The screw should have a big head and securely hold the deck board onto the substructure. The hole in the deck board needs to be slightly larger than the outer thread diameter of the fastening being used so that the head of the fastening can properly pull and hold the board onto the substructure.

The use of modern, “sales pitch - visually enhancing’ fixing systems are not suitable for class one heavy hardwoods as the stresses in the timber are simply too strong. We do not recommend the use of small headed screws, secret fixing, side fixing, deck clips, nails and/or double thread screws.

### **Only use stainless steel or non ferrous fixings and fastenings.**

There are a number of reasons for this:

- 1) Initially, tannins present in Clado and other hardwoods can react with any steel it is exposed to and cause black marks to form on the wood. The tannins will ultimately be washed out of the timber depending on how much rain the timber is exposed to. Tannins occur naturally in a number of hardwoods with some pieces of timber having more tannins and other less. See link to tannins in timber.
- 2) Over time the anti-corrosive layer on any ferrous fastening will fail/wear out and then rust streaks will start to form on the timber
- 3) Finally ferrous fastenings (especially the screw) will fail as a result of corrosion. Considering the lifespan of the class one hardwood decking it does not make sense to have the boards coming loose as result of corroded screws.
- 4) Screw length should be at least 2 times the thickness of the deckboard being used. Two screws per board across face on every joist up to 90mm wide deckboards and three screws across the face on every joist for 140 wide deckboards. Counter sink the top of the screw head flush with top of the board. If screw head is countersunk too deep, a small pool of water will accumulate every time it rains, which swells the wood around the screw and ultimately leads to screws loosening over time with constant swell – shrink movement.

Recommended joist spacing for 19mm thick boards is 400mm to 450mm max and for 30mm thick deckboards the spacing should be between 500mm to 600mm max apart. Measurements are centre of bearer to centre of bearer.

To get the best value from the class one deck board, a hardwood sub structure is recommended. The structure will outlast the deckboard. Lifespan of the deckboard is highly dependent on the conditions the deck is exposed to, but either way a long time. Please read up on our website to understand the inherent durability of Clado. It does not make any sense that the structure fails before the deckboard. Pine sub structures are better suited for Pine decking.

Finally, a class one hardwood deck should give you many years of trouble free service if installed correctly. Please vet your installers experience in hardwood decking installations to ensure you get value from the product you are buying. A badly or poorly installed deck can very rarely be redone using the same material over again.

It is recommended to give the timber a light oil ( Powafix TEAKOIL or similar ) coating, all around including end grain, pre installation. This should weather away over a few months. The oil coating is inexpensive and very easy to apply, the coating allows for the timber to gently settle into its new environment as the humidity in the timber equalizes with its surroundings.

We do not recommend linseed oil as it simply too thick, causes staining and remains sticky after application, (even if thinned), which attracts dirt.

Should it be your intention to varnish the timber then only an oil based varnish or sealer should be applied. An indication the product is oil based, is when instructions for brush cleaning specify turpentine to be used. It is then recommended to apply a initial first coat, all round, pre-installation. WRT to varnishes and finishes, please follow the manufactures current application procedure carefully as product specifications frequently change. Bear in mind the Clado is very dense and very little penetration will possible. A well thinned down fist coat may be necessary.