



Kayu Hardwood Decking Installation Guide

Prior to Installation:

Please store hardwood wrapped in a dry, shaded/covered area. Ensure properly stacked.

- Pre-oil all four sides with Messmer's UV Plus for Hardwoods, or Osmo Decking Oil. This ensures equal moisture transfer and reduces the likelihood of cupping.
 - Coverage ranges from 200 sq. ft. – 400 sq. ft. depending on finishing product.
- It is also recommended to cut both ends square then to seal all end cuts with DeckWise End Grain Sealant to help prevent end checking and cracking.
 - The sooner the end grain sealant is applied to exposed end grain, the more effective the coating will be. Application is recommended within 24 hours of cutting.
 - End Grain sealant will apply viscous, white liquid that dries to a waxy clear.
 - Always clean dirty wood before applying End Grain Sealant. Apply a liberal even coat to the end grain of the wood. Use hot, soapy water to clean equipment. Solvent cleaners are not recommended.
 - End Grain Sealant should be applied above 4.44°C, for best results apply between 10°C and 35°C.
 - Coverage: 1 quart – 500 sq. ft., 16oz. Bottle – 250 sq. ft.
 - Storage: End Grain Sealant should be stored like latex paint, in a controlled area above 10°C.

Note: Do not apply if precipitation is expected within 24 - 48 hours. Surface temperature must be between 8°C to 32°C

- Messmer's UV Plus and Osmo Decking Oil clean up with paint thinners and lacquer thinners.

As with any oil-based products there is **DANGER**: rags, pads, steel wool, or waste soaked with these products may self-ignite and catch fire if improperly discarded. Immediately after use place rags, pads, steel wool or waste in a sealed water filled metal container for proper disposal.

Installation:

For Top Screwing appearance: only use stainless steel fasteners or the Pro Plug System.

- Using the Pro Plug Tool (pre-drill and countersinking tool), pre-drill the holes at the predetermined locations.
- Insert the Pro Plug fasteners so they are flush with the countersink at the bottom of each hole.
- Using the glue nozzle, carefully squeeze exterior grade, waterproof glue into the plug hole. Ensure full coverage around the entire hole. (Recommended: to coat the inside walls of the hole while leaving as little glue in the bottom as possible). Use a rag to wipe off any excess glue.
- Insert a matching wood plug in each hole, with the chamfered end first. Making sure to line up the grain.
- Using moderate force, pound in the plugs until flush. Any excess glue can be wiped away.
- Sand the work surface, usually after the glue has set.

For Toe Screwing appearance: use the Kreg Deck Jig Hidden Deck Fastening System, with polyurethane exterior construction adhesive.

- Pre-drill screw holes with Kreg Deck Jig on both sides of the boards.
 - For faster installation just use the Kreg Deck Jig to pre-drill screw holes.
- Joist spacing 24" on center for 5/4 decking material
- For the best hold glue down decking material with exterior grade construction adhesive then fasten down the decking on both sides. Joist tape can be applied to help prevent joist wood rot.



- Especially at any butt joints, ensure you have glued down decking to underlying joists with either PL Premium, or Titebond Fast Set Polyurethane.
- It is also good building practice to install solid blocks to double up the joist to have the screws farther away from butt joints to prevent cracking.
- Use KREG Protec-Kote ACQ Deck Screws or stainless-steel screws. Anything else is not recommended as it may react with the hardwood.
- Leave a 1/4" or 5/16" gap between 5/4 x 6 deck boards to allow for expansion in moist conditions.
- Leave a 3/16" gap between 5/4 x 4 boards to allow for expansion in moist conditions
- Trim ends neatly and butt together tightly. Lengthwise expansion is nil.

For Clip Hidden appearance: use the Deckwise Extreme (3/32" gap) or Extreme-S (5/32" gap) clip system.

- Apply Joist Tape, or a bead of exterior adhesive to each joist.
- Use a 1/8" drill bit to pre-drill a pilot hole. Drilling deep enough to penetrate the deck board but not the underlying joist material.
- Use a 3/8" countersink bit to bore a hole approximately 1/4"-3/8" deep for each screw to be hidden by a hardwood plug.
- Securely drive a deck screw down into the countersunk hole into the joist below. Matching wood plugs to be installed into the holes to hide the screws. Adding a dab of exterior grade, waterproof glue to secure the plug. Using moderate force, pound in the plugs until flush. Ensure the plug grain matches up with the decking grain. Wipe away excess glue. Sand work surface once glue as set.
- If your product it not already grooves down the sides for the clips, use a biscuit joiner or a router (5/32" x 1/2" slot cutting bit) to cut a groove in the edge of the deck boards above each joist. You will want to center this groove in the board so there is a symmetrical profile for best results.
- Insert one Deckwise clip in the groove of the deck board above each joist. Where two boards meet on a single joist, only one fastener is needed. Drill a 1/8" pilot hole at a 45° angle for each screw.
- Run the stainless-steel screws at approximately 45° angle through the hole in the center of the clip through the deck board and down into the joist. Once the board is snug to the joist you can install the next fastener on the next joist. Fasten each board using one fastener and one screw per joist.
 - Where two boards meet on a single joist, the preferred method is to use a sister joist parallel to the main joist. Install two clips, one on each joist, where the board meet. However, only one centered fastener can be installed at their meeting point.
- Slide the next deck board onto the installed clip protruding from the previous deck board. Use spacer tool provided to ensure that fastener legs are not crushed while keeping your deck boards tight. Remove spacer tool as soon as the board has been fastened.
- On the last deck board, fastening clips will not be used and it is necessary to fasten the outside edge with surface screws. These surface screws can be concealed using matching plugs. It is also recommended to apply a small amount of construction adhesive on the outside joist for securing the last or outside edge deck board.
 - Note: Do not over tighten screws, they should be flush or slightly above the surface of the clip.
 - Note: If the fastener is tipping down when screw is installed, making the next board difficult to slide on. Reinstall the screw to stand more vertical.

IMPORTANT:

Use 5/4 x 4 decking boards when installing 18" or lower from ground and ensure proper ventilation and airflow beneath deck.



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If you wish to use the 5/4 x 6 decking close to the ground or low ventilation areas (rooftops) we insist on installing a hardwood strip on top of the joists, fastening hardwood to hardwood will prevent any cupping that could occur in a low ventilation, high moisture environment.

Please ensure that there is proper ventilation on all four sides under the decking material to provide proper airflow and drying.

Maintenance:

Apply the Messmer's UV Plus for Hardwood, or Osmo Decking Oil to well cleaned and dry decking once a year for the first few years then as needed to maintain appearance.

Once the oil is applied any products that is not absorbed into the wood within 10 – 20 minutes must be back brushed to prevent surface sheen.

Disclaimer: the information in this guide is believed to be accurate and true at the time of preparation. This is not a warranty of product or product specification.

Please also refer to manufacturers instructions at www.messmers.com, www.osmo.ca, www.kregtool.com, www.deckwise.com, www.starbornindustries.com

Please Note:

**These are just guidelines if you have any questions please call
Toll Free (1-877) 666-5298 (KAYU) to talk to an expert.**