

## Installing your Massaranduba/Brazilian Redwood Decking

Our Massaranduba is partially air-dried and then kiln-dried to approximately 15% moisture content to assure stability. It is suitable for outdoor use only. If you have an interior application, please contact us; **do not use our Massaranduba for interior applications. The following are tips we have gathered over the years from our customers that you might find useful. We are not installers or contractors, so please research and consult professionals and your local building code for handling, designing, installation tools and methods, and finishing. These tips are simply that – tips – and should not be interpreted as sufficient installation instructions.**

### I. Handling your Massaranduba

Before installing your air-dried decking, it's extremely important to **let the decking adjust** to your local climate. The adjustment time depends on the climate and temperature, but a good rule of thumb is 2 to 3 weeks. Store your Massaranduba in a cool, dry place, out of direct sunlight and elevated from the ground by at least 4". If you don't have such a place and plan to keep the material stacked, you can cover the surface with a tarp to shield the decking from direct sunlight; however, be absolutely sure to allow air circulation around the decking. For best results, lay your decking boards across the underlying framing members.

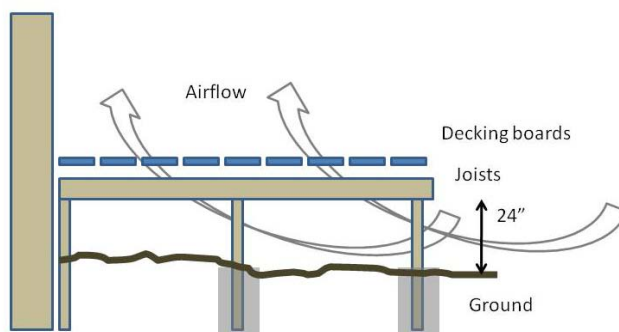
### II. Designing your deck

Massaranduba is a natural material and it is imperative to design your deck with several considerations in mind.

**Ventilation. Adequate cross-ventilation of your Massaranduba is crucial for a smooth deck surface.**

Massaranduba is a natural material, and it expands and contracts somewhat by absorbing/losing moisture into the air. Good ventilation / air circulation will ensure that the wood absorbs/loses moisture uniformly. If your deck is not sufficiently ventilated, some sides of the boards will dry more quickly than others, and the boards will curve or cup.

There should be **at least 24" below your deck**, and there should be **open ventilation on at least 3 sides** of the deck. For this reason, we do not recommend installing any type of enclosure or lattice on the sides below your deck, because it blocks ventilation. Do not attach Massaranduba directly to any solid surface (concrete, existing decking, or rubberized membranes over plywood).



**Board spacing. We recommend a minimum of 1/8" between 4" deck boards and 1/4" between 6" deck boards.** This spacing will (1) allow for air circulation and drainage, and (2) provide for proper spacing when the boards become fully seasoned. **Our Massaranduba, like all kiln-dried woods, will expand somewhat over time** as the wood becomes fully seasoned. This means that the spacing between your boards will decrease as the boards expand. **If you space your boards too closely, the gap between them may eventually close, preventing drainage or rainwater and causing your deck to buckle.**

The purchaser is solely responsible for insuring that the decking is installed appropriately for the job. This installation guide is intended to provide guidelines only. Efloor.com shall not be liable for installation expenses or damages by providing this information.

**Joist system.** 1x and 5/4x decking can be installed on 16" O/C joist systems. 5/4x decking may also be installed on 24" O/C joist systems. If you are installing a deck with a diagonal pattern, we advise shorter joist spacing. Your local building code may specify more details.

### III. Installation tips

Massaranduba is a very heavy, dense wood. Therefore, you cannot use nails to install it; you must use tools such as those described below.

**Tools.** We recommend using carbide tipped cutters, saw blades, and power tool bits. We recommend 40-tooth carbide blades as "good", 60-tooth blades as "better", and 80-tooth blades as "best." For drilling, use a high quality bit; cobalt alloy drill bits are a good choice. For larger holes, use a forstner bit.

**End Sealing Cuts.** End checking (tiny cracks) and splitting can occur when the boards lose moisture. When you cut a board, you expose end grain. The ends of our Massaranduba boards are already sealed. After you crosscut Massaranduba, it is important to re-seal the cut ends, in order to prevent end splits and checking. ***Seal the ends immediately (within a few minutes) with a clear aqueous wax end sealer, such as Anchor Seal by UC Coatings. Follow the directions provided by Anchor Seal.*** You just brush on the sealer and let it dry; it will dry clear. One quart of Anchor Seal should be sufficient for 500 sq. ft. of decking.

**Drilling.** Pre-drill all your boards before using fasteners. Pre-drill pilot holes close to the actual standard screw or nail diameter to prevent splitting. Trim-head screws require a pilot hole slightly larger than the diameter of the screw head to permit countersinking.

**Screws.** Use stainless steel screws, because they have superior corrosion resistance, maximum holding power, and ease of use. We suggest Swaneze stainless steel #7 trim head screws. Do not use galvanized screws or fasteners, because they will discolor the wood.

### IV. Installation Methods

We recommend installing Massaranduba with screw-down methods.

- 1) **Finish screw method.** Trim head screws are small and are only slightly noticeable. Screw trim head screws into the face of the decking, two screws per joist.
- 2) **Face screw method.** This method uses 3/8" Massaranduba plugs to cover screw heads. Countersink 3/8" holes into the face of your boards. Pre-drill 1/8" pilot holes completely through the deck boards. Screw the deck boards down with stainless screws. Glue the plugs into place with a very high quality waterproof glue or epoxy. When the deck is complete, use a very sharp chisel to knock off the plug tops, and then sand the top of plugs smooth, using an orbital sander with about 80- grit sandpaper.

### V. Finishing

Massaranduba is an extremely dense wood and contains oil and alkaline. For that reason, many oil-and-water and oil-based coatings will react to the wood, with effects ranging from drying and adhesion problems to color changes in the wood. We have found two options that work well.

- 1) **Natural weathering.** ***After construction, wait 48 hours and then apply a thin coating the UV protectant to reduce checking and color fading.*** Left totally untreated, Massaranduba weathers naturally to a soft, silver-gray patina that requires no maintenance. Just keep it clean, and relax and enjoy the natural beauty.
- 2) **Rich redwood finish.** If you wish to maintain Massaranduba's rich, natural redwood color and to minimize surface checking, we recommend applying a penetrating oil finish with a UV protectant after your deck has been installed and periodically thereafter. ***After construction, wait 48 hours and then apply a thin coating the UV protectant to reduce checking and color fading. Messmers UV Plus is an excellent product for this purpose. Follow the directions provided by Messmers.***

### VI. Enjoy your deck!

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