



**BWDEPOT**



**BWDepot Decking  
Wizard  
Report - #102**

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# Conditions

Below are the installation conditions that you provided to the Decking Wizard. These are the key factors that affect performance and guide the best choices for decking type and fastening system.

## LOW AIR-FLOW

Low airflow indicates limited circulation beneath the deck, creating a higher potential for trapped moisture. This condition increases the likelihood of movement-related issues such as cupping and can influence the performance of fastening systems.

## MINIMUM TO MODERATE SUNLIGHT

We will assume the deck does not have a roof overhead, but it is subject to substantial to moderate shade. For example, it may be located on the north or east side of the house, where it does not receive full, direct sunlight throughout the day.

**“Brazilian Hardwood Decking isn’t a commodity—it takes understanding each project’s conditions and limitations to choose the right wood and fastening system for optimum performance.”**



# Analysis

When **sunlight exposure is limited to minimum or moderate levels**, deck boards expand and contract from daily heating. However, **reduced airflow beneath the deck** can still trap **moisture on the underside** while the surface remains relatively drier, particularly in **shaded conditions**. This imbalance may still cause movement, though typically **less pronounced** than under heavy sunlight.

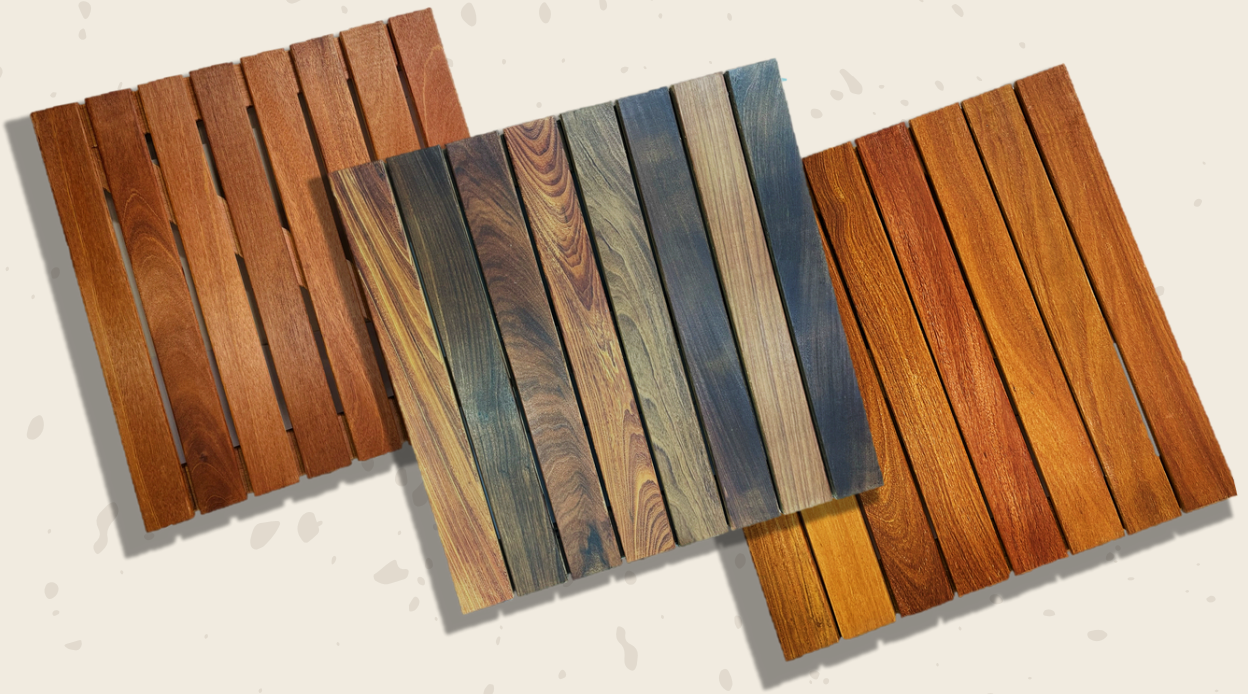
In these situations, the **choice of species and fastening method** becomes important. **Hardwoods with increased natural stability** may perform better and fastening systems—such as clips versus face-screws—should be selected based on how much sunlight the deck will realistically receive. Careful **matching of species and fasteners to site-specific conditions** will ensure **optimum long-term performance**.



# Recommendation: Deck Tiles

Deck Tiles can be a good solution under a variety of coverage conditions. While they may not be strictly necessary in this case, they are worth considering due to their proven functionality in installations with sunlight exposure and limited airflow beneath the deck.

*Click any of the images to redirect to more details, galleries, and installation information*



## DECK TILES

# Recommendation: Standard Decking Species

For a more traditional hardwood look, Ipe and Garapa remain the most proven choices, with a long history of stability under demanding conditions. Ipe and Garapa are especially strong considerations where sunlight exposure is moderate to heavy, as both species have shown consistent reliability in those conditions.

On the lighter sunlight side of the spectrum, Massaranduba and Cumaru can also be suitable options, offering durable performance when exposure demands are less severe.

*Click any of the images to redirect to more details, galleries, and installation information*



**IPE**



**MASSARANDUBA**



**GARAPA**



**CUMARU**

# Recommendation:

## Bottom Grooves (Kerf)

**1x6 and 5/4x6 boards** can be bottom-grooved to **reduce cupping** and stress caused by uneven moisture exposure. By allowing the underside of the board to **expand and contract more evenly** with the surface, grooves help limit warping. Bottom kerfing is especially valuable for decks installed over **under-deck drainage systems** or have reduced air-flow below or where hardwood will make **extended contact with beams, blocking, or waterproof membranes**.

**Brazilian Wood Depot** has offered this service for many years with consistent success. While it is **not a guarantee against cupping**, it has a proven **track record of improving performance**. We only recommend bottom-grooved boards when conditions call for it, but in many of these cases it is the right choice. **Consult with your salesperson for more information.**



# Fastening Considerations

While a variety of fastening methods are acceptable—especially with Ipe and Garapa, which are particularly stable—it's important to consider the stresses of low airflow below and the sunlight above. Even with bottom grooves, these conditions can be demanding.



For best results, use a surface fastener such as stainless steel screws or screws with matching plugs. If you prefer a hidden fastening system, especially over a drainage system, select one that allows for continued access from the top so the drainage can be serviced if needed. CAMO Edge Fasteners provides this functionality, for instance.

## INSTALLATION GUIDES + VIDEOS

**Surface Screw Installation Guide**

**Screw + Plug Installation Guide**

**CAMO Edge Fastening Guide**

**ALL OF OUR INSTALLATION GUIDES ARE ALSO AVAILABLE IN SPANISH, [CLICK HERE.](#)**

# Next Steps

## CLICK HERE TO GENERATE AN EMAIL

pre-filled with **THIS report code** and key project details. Add anything else you'd like us to know, and we'll get your quote started today!

## COMMUNICATE ON YOUR TERMS!

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