



General Product Information



Bamboo Technology & Innovation
Germany since 1994

Decking | Steps

Status: 01.08.2013 | Technical modifications and errors excluded.

aMbooo

Highland Bamboo only

Installation

Substructure	<ul style="list-style-type: none">- Install drainage to avoid stagnant water formation (sand layer with gravel or equivalent)- Install vertical root control fabric to protect against unwanted plant growth- Plan a 2% inclination in the decking boards' longitudinal direction (i.e. 2 cm height difference per 1 m)
Support structure	<ul style="list-style-type: none">- Lay and secure (with stainless steel brackets) the support structure on additional ground blocks (e.g. paving stones) to improve ventilation, to avoid direct ground contact and optimise weight distribution- <u>Max. 40 cm</u> clearance between support beams when laying decking boards in parallel fashion- Please be careful to stagger butt joints otherwise a contiguous surface will not be assured
Additional note	While planning and executing your project be careful to observe local building regulations as well as known guidelines such as "Technical Rules 02 BDZ and Recommendations of Use for Decking Surfaces by the German Timber Trade Federation". In the case of static load surfaces the support structure must be constructed with sufficient load strength. If a construction project diverges from the specifications set out in the installation instructions and technical rules, the construction must be approved by the manufacturer, otherwise all guarantees are null and void
Material care	Decking boards are pre-oiled at the factory. Once the installation has been completed, the surface should be given initial treatment using the appropriate aMbooo Special Bamboo Care Oil to achieve optimal protection from weather incidence. If this initial care is not carried out it could be that under certain conditions the decking surface is not sufficiently protected from weather incidence and any eventual occurrences of material change may be more severe than normal. Please be careful to observe the recommended application quantity of aMbooo Special Bamboo Care Oil and to stir well before use. Too great an application quantity causes a strong film build-up. This can result in flaking. Apply very thinly, immediately remove any wet patches or oil residue.
Fixing method & special cases	
Classic screw join (i.e. visible from above)	<ul style="list-style-type: none">- min. 15 to 20 mm clearance between decking board and adjoining wall surfaces- observe longitudinal 5 mm expansion tongue & groove clearance between decking boards- screw twice (2 cm clearance from decking board edge) per support point- for decking boards and support structure (except BPC support structures) pre-bore screw holes appropriately to screw length in one go (e.g. without pause/interval)- drill bit size should be at least 0,5 - 1,0 mm smaller than screw diameter- if necessary, it is possible to replace decking boards using this classic method, i.e. visible screws!
aMbooo® stainless-steel clip	<ul style="list-style-type: none">- min. 15 to 20 mm clearance between decking board and adjoining wall surfaces- longitudinal expansion tongue & groove clearance set by clip- for decking boards and support structure (except BPC support structures) pre-bore screw holes appropriately to screw length in one go (e.g. without pause/interval)- drill bit size should be at least 0,5 - 1,0 mm smaller than screw diameter- if necessary, it is possible to replace decking boards using the classic method, i.e. visible screws!

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Natural characteristics and care

Bamboo is a natural material and for hundreds of years has been a highly popular building material in Asia. The uniqueness of this natural product is typified by an extremely high structural strength, good processing opportunities and the distinctive character of each single element. This natural and rustic character, which lends bamboo its special charm, is however also contingent to certain constraints in quality that have to be taken into consideration.

- **Nodes**

Nodes belong to the natural aspect of bamboo. Nodes indicate the daily growth limit. They give bamboo its special/extraordinary grain and structure, both of which can strongly vary depending on growing region and other growth-specific influences.

- **Bamboo contents**

Bamboo belongs to the grass family and comprises 77% silicium, which gives the material its particular hardness. The binder content lies by circa 10%. There are no released substances such as tannins which could cause discolouring of adjacent components. Resin discharge is unknown.

- **Greying and soiling**

Subject to natural weather incidence and under the influence of unavoidable ultraviolet radiation bamboo decking boards fade in colour and acquire a natural patina. Despite regular care, greying can appear to different degrees according to the place and situation of the decking. In direct comparison with customary hardwoods (for example, bangkirai, massaranduba, cumaru, ipé etc.) bamboo greys less and above all less quickly. Depending on care, position and ventilation, surface pore soiling (for example, verdigris, black discolouring or mould stains) may appear with time but these are generally non-destructive elements for bamboo. This is a natural process and cannot be completely eliminated even when cleaning and care is carried out with optimal regularity. For cleaning, please use our cleaner following the instructions. It is possible to achieve even better results in combination with our silicium-carbide brush. Afterwards one should treat the cleaned surface with the appropriate bamboo care oil (colour: coffee | espresso). To attain the best protection possible we recommend treating the bamboo decking boards at least 2 x a year with our aMboo Special Bamboo Care Oil. The decking boards should only be treated with appropriate/approved care products (no wood preservatives!) provided by GS Götz Schmitt GmbH or similar products. Please observe the recommended application quantity for our aMboo Special Bamboo Care Oil and stir well before use. Too great an application quantity causes a strong film build-up. This can result in flaking.

- **Differences in brightness**

Depending on production, the decking board surfaces may show differences in brightness. With time, through weather incidence and regular oil care, these differences become less distinguishable. Provided you have chosen one profile surface for laying, the visible difference will be minimal.

- **Warping, dry cracks, roughness and splintering**

As soon as decking boards are exposed to natural weathering, changes may occur to their surface. With time the boards become rougher and dry cracks and splintering can occur. On account of the natural structure of bamboo splinters are longer in comparison to wood.

Depending on position, and weather incidence on the decking boards, the characteristics mentioned above can occur to different degrees or may not occur at all. Bamboo boards - just like hardwood - are not subject to DIN norms. Therefore dry cracks, rough surfaces and splintering are principally admissible, do not represent grounds for complaint and have no negative influence whatsoever on static properties or durability. Warping and light cupping up to 2 mm per 100 mm width are also acceptable. These material changes can occur shortly after laying. Despite highly technical production processes these characteristics - as with other common woods - are not 100% avoidable.

By means of regular care (1-2 x a year cleaning and oiling) it is possible to counteract the characteristics described above. Please observe that material changes (cracks, roughness etc.) are more noticeable/visible on a smooth surface than on a profiled surface. When installing decking boards in a swimming-pool area, cleaning and care must be carried out more often. Rough surfaces and splinters can, as necessary, be partly or completely corrected with a silicium-carbide brush or disc (e.g. smoothing the surface, grinding down the splinters). If uneven patches cannot be sufficiently corrected using the silicium-carbide brush or disc, the surface can be polished with a monodisc grinder (80 grain recommended). Afterwards, the surface must once more be treated with the appropriate aMboo Special Bamboo Care Oil.

- **Swelling and shrinkage**

Bamboo is subject to typical weather- and material-dependent swelling and shrinkage behaviour of circa 3%. According to structure, swelling and shrinkage does not occur uniformly. This can lead to dry cracks and chip formation.

- **Odour formation**

On account of bamboo decking board compounds (phenolic resin etc.) it is possible - as with customary woods - that odour formation occurs. This looses in intensity over time. Dependent on the position of the decking, and the on-site ventilation conditions, odour formation may be increased or, to an extent, not even be noticeable. Odour formation is a natural material characteristic and quite harmless.