

Bamboo Composite Mat Safety & Operating Instructions

1.0 General Information of the Bamboo Composite Mat



The rendered image on this document is for illustrative purpose only. Actual product may vary.

- The Bamboo composite mat is a single-sided use only, designed to distribute the load of the vehicle to the ground.
- Each Bamboo Composite Mat is manufactured using the laminated veneer Bamboo and provide a great amount of strength.
- Direction of travel on the mats can be lengthwise or cross wise.
- The allowed maximum load of 50T per mat is subjected to the ground conditions.

2.0 Specifications of the Bamboo Composite Mat

Length (mm)	≈3902
Width (mm)	≈2210
Height (mm)	≈68
Weight (kg)	≈545
Density (kg/m ³)	≈1000-1100

3.0 Safety Information for Bamboo Composite Mat

- Contact your local depot for a free ground survey.
- The contractor is responsible for pre-planning against what can happen and prepare for it.
- A site-specific risk assessment must also be carried out before any installation.
- Before any usage, a ground and weather condition survey must be carried out in that particular region. The ground survey must include in-depth research consisting of any underground utilities such as gas pipes, water pipes, and electrical cables, etc.
- PPE (safety gloves and boots) must be worn prior to the start of laying mats. It is imperative that safety gloves are worn at all times when handling the Bamboo mats.
- The mats are too heavy for manual handling.
- The mats can be handled via forklift, telehandler or crane using appropriate 6m x 4 Leg-Chain set.
- The mat can be used in all weather conditions, from the coldest regions to the warmest.
- The bamboo composite mats will sink in water.
- Spinning wheels will result in damage to the mats. Careful driving and movement are required on the mats at all times.
- Do not use an excavator to lift the corner of the mat. This will cause damage to edge of the mat and the metal collar around the lifting point.
- Bamboo mats must not be used solely as crane outrigger pads, they must have extra support spreading load.

4.0 Instructions and manual guide for installation, removal & cleaning

4.1 Installation steps

- A visual site layout should be explored to determine the orientation of the first mat.
- To allow for easier installation, where appropriate the roadway should start at the socket end and not the tongues. Later version of the panels do-not have sockets and tongues.
- This combined with some preliminary sketches and/ or measurements will maximize the mat layout for the specific site. The surface of the tongues should be free of debris that could interfere with the proper connection.
- Installation teams should assign a minimum of two team members to the task of aligning and positioning mats.
- Handling the mats: a lorry mounted crane, using a 6m x 4 Leg-Chain set is recommended or using telehandler or forklift. A maximum of two panels only must be lifted at one time when using a crane. The mats are transported to the desired location to be installed where they will be positioned and butted together. No specialist joining or lifting tools required.
- The ground must be levelled to remove any uneven rutting, etc.
- The mats are intended to be butted together or overlapped by minimum of 150mm. A limited number of mats have the tongue and socket joining. Connection of the mats occurs when the tongues fit in the square sockets and the square sockets and tongues are aligned.
- When joining the mats, it can sometimes become difficult to fit the tongue in place. This is likely due to ground variation or debris such as in muddy environments. It is helpful to ensure the ground is level at the joint.

Also note, weather condition is unpredictable especially during the night with little or no warning. Always check weather forecast.

4.2 Removal of the Bamboo Composite Mat

Bamboo Composite mats are removed in the opposite direction in which they were laid. In other words, unlocking the tongue and socket, thus freeing the next mat for removal. The mats can then be lifted out of arrangement safely.

Ground condition/suction will increase the force required to lift the mats.

4.3 Cleaning, storage, snow/ice removal

- Metal blades or excavator buckets must not be used to clean debris or snow off Bamboo Composite Mat.
- Bamboo Composite Mat can be cleaned using a powered pressure washer.
- Store mats in a secure location after use.
- The mats must be correctly stored. They have a topside and an underside. The topside is identified by the domed heads of the bolts joining the panels together, along with the lifting points.
- Following heavy snowfall or snow/ ice, clean the Bamboo Composite Mat with a brush and hand shovel.
- Long roadways may be cleaned using snow plough with a rubber or plastic strip fitted to avoid damage to the surface of the roadway.

Bamboo Composite Mat is not designed as a bridging solution and should not be considered for crossing large holes or gaps

Bamboo Composite Mat is perfect for rubber-tyred or rubber-tracked vehicle

Marwood Group always recommends that a site survey and a full risk assessment must be carried out including loading and ground conditions before using Bamboo Composite Mat. It is the end user's responsibility to make sure the mats are suitable for their intended use.

Contact your local Marwood Group Depot, for replacement & repair to mats and their components

Marwood Group Ltd now offers an installation service