

**CrocodileProducts**  
INC.

# DURABLE RENEWABLE MATTING SOLUTIONS



**Crocodile Products manufactures and distributes temporary road and portable platform solutions which are used to support equipment in resource-based activities including construction, oil drilling, camps, renewable energy installations and to provide passage over unstable ground.**

As an Alberta, Canada based company, located in the heartland of Canada's oil production, we found ourselves in a unique position to combine our production experience with our knowledge of the needs of the oil industry by redesigning a common product in the oil and gas industry.

We consulted with structural engineers, manufacturing and construction experts, and set out to design a new solution for temporary matting. We have used third party researchers to extensively test and validate our products. These tests have occurred both in the lab and in the field under real world conditions, from Australia to Canada.

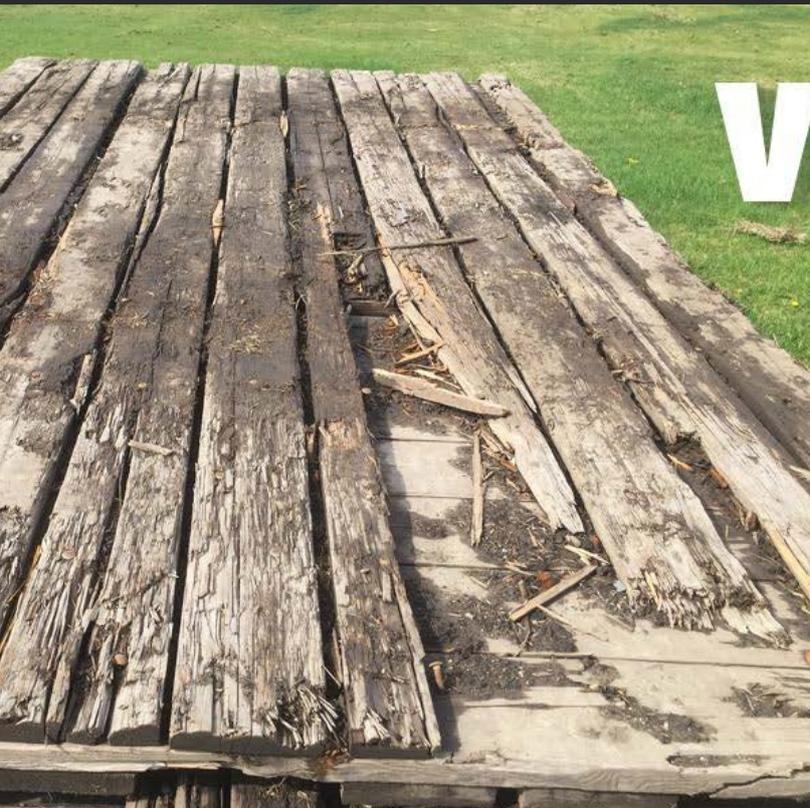
The results of these tests prove the superior performance of our mats. Our meticulous quality control and monitoring systems ensure that every shipment of mats meets our standards. All of Crocodile Products mats have undergone rigorous testing to ensure maximum durability, strength, and longevity.

### OUR PRODUCTS

Throwaway products are not solutions. We have developed a range of mats that exceed our customers' requirements.

Our trademark bamboo mats provide a durable and eco-friendly work site. Crocodile Mats are built to last.

Our mats were originally designed for the brutal and ever-changing conditions in the Northern Canada oil sands. Around the world — from oil sands to muddy swamps, bridging gaps in forest roads and providing access through tough terrain — Crocodile Mats are proven to work in extreme climates and under the most rigorous conditions.



**Fir Mat – 2 years**

**VS**



**Crocodile Bamboo Mat – 4 years**



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# BAMBOO ACCESS MATS

Our bamboo composite mats have been designed to overcome some of the natural limitations of timber and steel mats.

The panels in our design maximize on the inherent flexibility of bamboo, allowing them to bend on uneven ground. By incorporating new technology into traditional design, we were able to make our Bamboo Composite Mats stronger and less susceptible to breakage.

Engineering the mats out of bamboo composite allowed us to create a product that retains less than 10% water, compared to at least 30% moisture retention with traditional hardwood. The low moisture content and the superior strength of bamboo composite over more traditional material, has allowed us to keep the weight lower than comparable mats. This has resulted in significant logistic savings over the life span of the mat.

As our mats are produced from an engineered composite panel, our mats keep a consistent strength and are less susceptible to breakage. Traditional timber mats are more prone to breakage as timber boards will often have structural weakness in part of the board. Our strict quality control and tested production methods ensure that the quality of our mats is consistent.

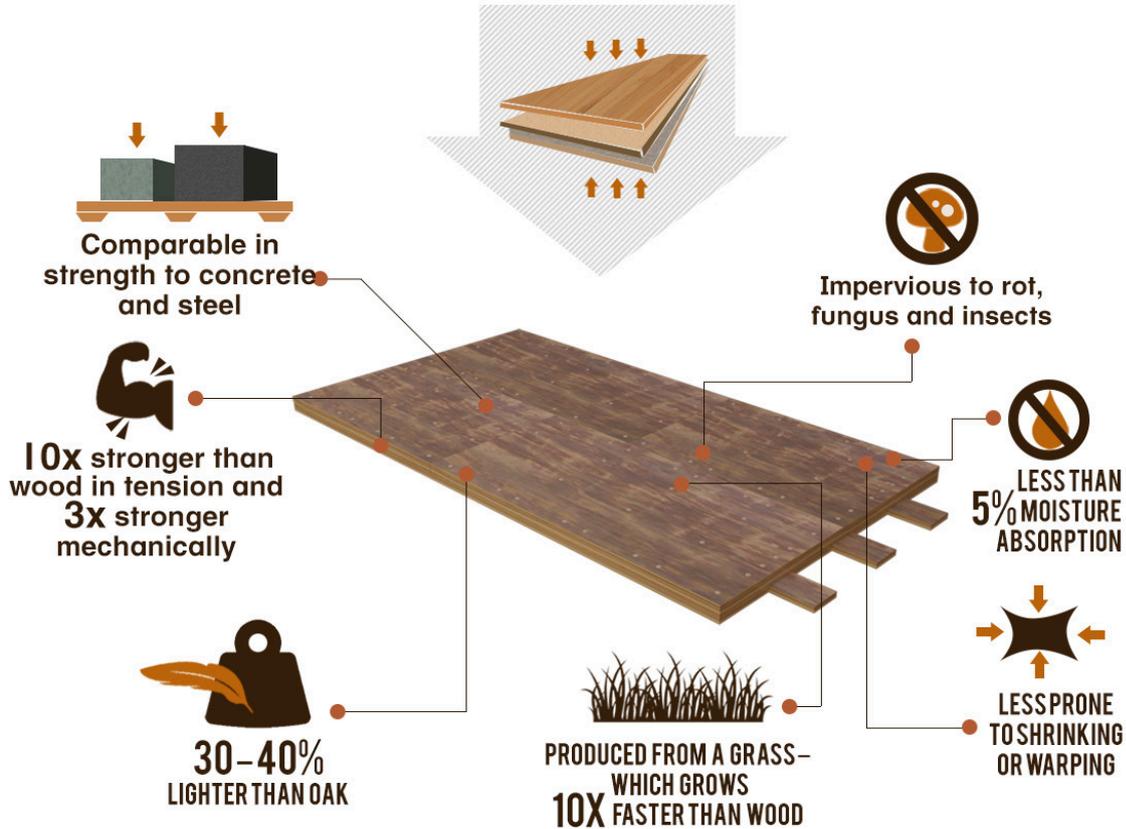
Bamboo has a tensile strength of 28,000 per square inch compared to 23,000 for steel. The bending strength has been tested at double the strength of solid oak.

Due to the superior strength of bamboo composite, the mats are especially suitable for steel tracked vehicles such as excavators. Some of our users in the far North even used corked steel tracks during winter without causing damage to the mats.



# What is LVB?

Laminated Veneer Bamboo  
is a high-strength engineered product created by  
bonding together thin bamboo veneers under heat  
and pressure



## Sustainability

Bamboo is one of the fastest growing plants on earth. For our products, we use bamboo that is 3-6 years old. The entire 'cluster' is never entirely cut: for each 3-4 pieces of bamboo we cut, there are 1-2 pieces left that regenerate and can then be cut again after 3-6 years. The farmers also plant sprouts each year to ensure the long term sustainability of the bamboo. It is all highly controlled to ensure the sustainability of the industry.

Compared to traditional hardwood which have a growth cycle of 30+ years, bamboo is superior from a sustainability point of view with the added benefit of providing livelihood for a large number of farmers.

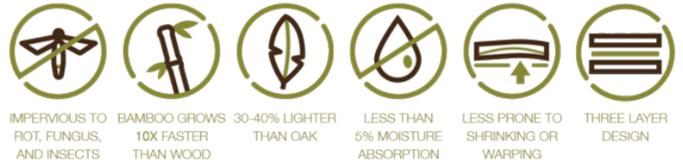
Due to our factory's location in the middle of a 140,000+ hectare bamboo growing area, we always have ample supply of raw material. Bamboo is cut throughout the year which means that we can guarantee short lead times on a consistent basis. The factory is also FSC certified and Crocodile Products has chain of custody certification.



The mark of  
responsible forestry  
FSC® C174918

# COMPOSITE BAMBOO ACCESS MAT

## CP22AMB004



IMPERIOUS TO  
ROT, FUNGUS,  
AND INSECTS

BAMBOO GROWS  
10X FASTER  
THAN WOOD

30-40% LIGHTER  
THAN OAK

LESS THAN  
5% MOISTURE  
ABSORPTION

LESS PRONE TO  
SHRINKING OR  
WARPING

THREE LAYER  
DESIGN



**MAT FEATURES**  
Rough non-slip surface  
Beveled edging  
Flush-fit, no trip hardware

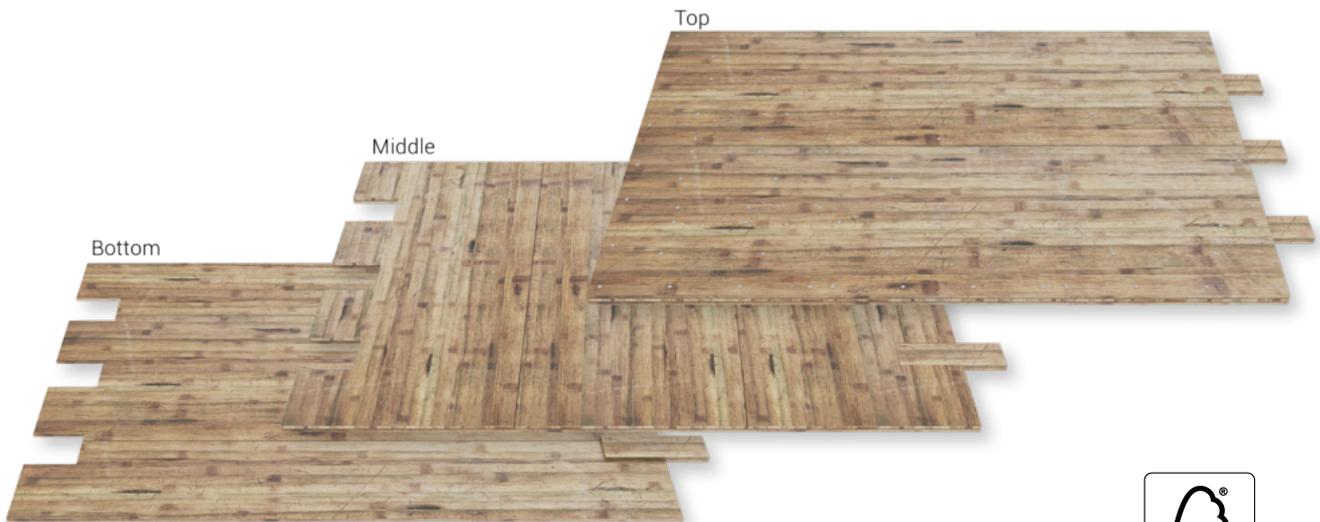
**WEIGHT**  
**1610lbs** 730kg

**DIMENSIONS**  
**8' x 14' x 2 3/4"**  
2438 x 4267 x 70 mm

**124 BOLTS**

**MATERIAL**  
Laminated Veneer Bamboo

**BAMBOO FEATURES**  
Naturally repels moisture  
More impervious to rot, fungus and insects



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NEW TECHNOLOGY  
INTO TRADITIONAL  
DESIGN

### Our Bamboo Access Mat is modeled after the most common mat type on the market

The mats are commonly used as temporary roads for trucks and construction equipment with an axle load up to 35 tons as well as temporary floor space for cranes and excavators with an average weight up to 40 tons per mat.

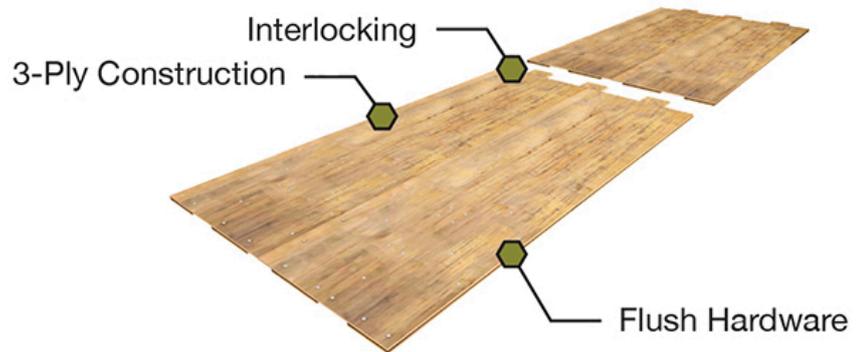
The access mat is used for providing support when moving equipment and vehicles over unstable ground as well as protecting the underlying soil and surface.

# ACCESS MAT OPTIONS

## INTERLOCKING DESIGN

As standard, our access mats are equipped with interlocking fingers allowing a smooth and seamless connection between the mats compared to traditional crane mats and steel mats. The interlocking fingers prevent the end of the mat to rise when putting pressure on the other end protecting the undercarriage of vehicles from damage.

The mats can also be supplied with flush ends, i.e. without fingers.



Bamboo Mat with interlocking fingers



Bamboo Mat without interlocking fingers

Traditionally, these fingers have been the weak point of this kind of design. However, due to the strength of bamboo composite, damage to the fingers have been minimal.

## LIFTING OF MATS

As an option, we can offer our bamboo composite access mat with lifting points. This feature adds to the safety of the mat when offloading the mats from truck using crane and also when moving the mat on site using crane.



Bamboo Mat with lifting points



# Technical Data Sheet

## Crocodile Bamboo Matting Systems

### BENEFITS

Eco-friendly	10x stronger than wood in tension and 3x stronger mechanically
Laminated Veneer Bamboo is less prone to shrinking and warping	Flexible bends over uneven ground
Prevents damage to sites in sensitive areas	Fast, efficient, and safe installation
Impervious to rot, fungus, and insects	Durable average 4-6 years working life
Comparable to steel and concrete in strength	Easy to clean and store

### SPECIFICATIONS

Product Name	Bamboo Access Mats, Bamboo Road Mats, Bamboo Rigmats, Bamboo Mining Mats, Bamboo Construction Mats, Bamboo Ground Mats
Structure	Strand woven, hot pressed
Moisture Content	≤ 12%.
Density	1000 – 1100 kg / m <sup>3</sup>
Hardness	Brinell > 9.5kg/mm <sup>2</sup>
Impact Resistance	BS EN 13329:2016 ≥ 1650 (IC3) mm
Bending Strength	TCVN 7756-6: 2007 ≥ 115.16 MPa
Bending Elasticity Modulus	TCVN 7756-6: 2007 ≥ 15,437 MPa
Expansion Rate or water absorption	≤ 5%
Compression (Weighload)	TCVN8048-5-2009 ≥ 74.24 kg/cm <sup>2</sup>
Formaldehyde Emission	0.01 Ppm. Meets standards of US (CARB P2), EU (SE0) and Japan (F4*)
Flammability Testing	EN ISO 11925-2 (Classification Efl)
Finish	None or Outdoor Oil
Certificates	FSC, BCSI, ISO9001: 2015