

SignaRoad[®] Access Mat

1.0 General Information of the SignaRoad®

SignaRoad is perfect for rubber-tyred or rubber-tracked vehicle Not suitable for steel tracks, buckets or blades



- SignaRoad is a two-sided mat. One side has an aggressive tread that is intended for vehicle traffic. The opposite side of the mat is a lighter, pedestrian surface.
- Each SignaRoad mat is manufactured using the highest quality virgin HDPE, with special impact modifiers and fillers to accommodate thermal expansion, incorporate UV resistance, add anti-static properties, and provide tremendous strength.
- Mat sections incorporate a weight-saving ribbed interior structure that provides tremendous weight-bearing capacity while allowing for sections to be easily handled by a standard forklift.
- Each SignaRoad top section is sealed securely together to handle mat flexure and other everyday abuses.

2.0 Specifications

Actual mat length (m)	2.08
Actual mat width (m)	3.00
Thickness (mm)	63.5
Useable surface (platform) (m)	1.88 x 2.84
Useable surface (roadway) (m)	2.08 x 3.00
Weight (kg)	225 (from Manufacturer)
Weight load (kPa)	1378

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3.0 Accessories for SignaRoad® Access Mat



Pin Locking pins for cam receivers for securing mats together (0.25kg)



T Bar Lock the pins once installed into the cam receivers (4kg)



Alignment tool Used to help align the holes so pin insertion easier (5.5kg)



Extractor tool To remove pins more easily than by hand (4kg)



Flat Pry bar tool To move mats around on the ground if plant and machinery is not available at the time (7kg)



4.0 Safety Information for SignaRoad® Access Mat

- Contact your local MWG depot to complete a site survey.
- A site-specific risk assessment must also be carried out before any installation.
- The mats are too heavy for manual handling. The mats may be installed utilising a telehandler, crane or similar equipment with a cable, hoisting hook, and properly sized lifting straps.
- PPE (safety gloves and boots) must be worn prior to the start of laying mats.
- The contractor or owner is responsible for pre-planning against what can happen and prepare for it.
- 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.
- The mat can be used in all weather conditions, from the coldest regions to the warmest, and is manufactured using the highest quality plastics.
- Spinning wheels will result in damage to the mats. Careful driving and movement are required on the mats at all times.

5.0 Instructions and manual guide for installation, removal & cleaning

5.1 Installation steps

Connection of the mats occurs when the flanges are overlapped (i.e. mats are positioned adjacent to each other) and the cam locks are aligned. The Locking Pin is then inserted and rotated 90 degrees, locking the mats to each other.

It is best to position mats so that the projecting flange (under-lapping) on the first mat is open to receiving an overlapping mat flange. A visual site layout should be explored to determine the orientation of the first mat. This combined with some preliminary sketches and/ or measurements will maximize the mat layout for the specific site. The surface of the flanges should be free of debris that could interfere with the proper connection. Consideration should be given upfront to laying the first mat in such a way that the under-lapping flanges (2 sides) are always open in the direction(s) required for installation.

Installation teams should assign a minimum of two team members to the task of aligning and positioning mats, using two alignment bars to locate the panels. As the second mat is positioned and aligned, a Locking Pin can be dropped through the receiver hole in the overlapping mat and into the receiver hole in the under-lapping mat. Each connection point can be locked with a 90-degree turn using the T-handle

wrench. Depending on the subsurface conditions, not every hole necessarily requires a locking pin during assembly. Though for optimal performance on softer sub-surfaces, it is recommended that all connector holes/locks be utilised.

When connecting mats, it can sometimes become difficult to lock the pin into place. This is likely due to ground variation or debris such as in muddy environments. It is often helpful to put pressure on the overlapping mat flange to press the two mats together. This can be accomplished with the loader/forklift.

Once the first series of mats are laid, mats may be continuously laid in the direction of the projecting under-lapping flanges. Should positioning of a mat underneath a projecting flange be required, a mat can generally be nudged with a forklift underneath the overhanging flange.

5.2 Using SignaRoad for Roadway

It is recommended that mats be connected long-side to long-side, which creates a 3m wide roadway, suitable for typical vehicles and equipment. Alternatively, mats may be connected two mats wide, short-side to short-side. Mats may be laid side by side or staggered, depending on the need for additional strength. It is generally recommended that when connecting roadways using the short-side to the short-side method that mats be staggered for greater strength. (Using the staggered methodology there are no 4-way intersecting seams, only 3-way intersecting seams and this assists in distributing weight. Remember to only stagger mats such that a 3-way seam intersection is created vs. another 4-way seam). Remember to always connect SignaRoad in the direction of the under-lapping flange, so that they are always ready to receive the next overlapping mat.

5.3 Using SignaRoad at turning lanes and turning areas

Passing lane mats should be added to the side where the under-lapping flange is exposed, thus facilitating the connection and positioning of the passing lane mats. Depending on the length of the passing area required, additional SignaRoad sections can be added to the passing area, once again on the side where the under-lapping flanges are exposed.

To create a large turning area or turn-out, the same methodology would apply, in that mats are easily installed with the overlapping flange placed over the exposed under-lapping flange. Matting can be built out in both directions of the exposed flanges.

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1	2					Compound Build-out
1 8	2 9			5 12		Compound Build-out Method
1 8 15	2 9 16	3 10 17		5 12 19		Compound Build-out Method
1 8 15 22	2 9 16 23	3 10 17 24	4 11 18 25	5 12 19 26	6 13 20 27	Compound Build-out Method 21 28

5.4 Using SignaRoad as work platforms or roadways

SignaRoad is designed to connect in all directions, allowing for the construction of a work compound, equipment pad or roadways.

To begin the installation, always begin in one corner of the site (preferably closest to access road) and be sure to lay the first row of mats in as straight a manner as possible, ensuring that the first row of mats is parallel to the site so that further mats don't drift off course. This first row is the most important, as subsequent rows of mats simply follow the same line. To verify alignment it is suggested that a string line be run for the first row installed. Remember to always position the first mat such that the underlapping flanges are open and ready to receive the next SignaRoad.

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

5.5 Removal SignaRoad steps

SignaRoad mats are removed in the opposite direction in which they were laid. In other words, mats with flanges overlapping adjacent mats should be removed first, thus freeing the next mat for removal. To remove mats, simply unlock the Locking Pins, thus disengaging mats from adjacent mats. Remove locking pins using the extractor tool and store in a safe place for future use.

6.0 Cleaning, storage, snow/ice removal

- Metal blades or excavator buckets must not be used to clean debris or snow off SignaRoad.
- SignaRoad can be cleaned using a powered pressure washer, longer roadways can be cleaned using a road sweeper.
- Store mats in a secure location after use.
- Following heavy snowfall or snow/ ice, clean the SignaRoad 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.

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

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

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

Marwood Group Ltd now offers an installation service