

TERRATILE®

User Guide

Installation Instructions on Natural / Artificial Turf

This publication has been produced as an aide to installing your TERRATILE® System and accompanying Accessories. Whilst every care has been taken to ensure the contents are both thorough and accurate it should be used as a guide only.

All queries, technical questions etc, can be directed to:

Terraplas plc
Head Office
9 High Street
CASTLE DONINGTON
Derby
DE74 2PP

+44 (0) 1332 812 813

robertelse@terraplas.com

www.terraplas.com

Contents and Index

- 1. Field / Pitch Preparation**
 - Page 3 Section 1.1 Grass Length
 - Page 3 Section 1.2 Humidity Level / Extended Period of Use

- 2. Health & Safety**
 - Page 2 Section 2.1 Risk Assessments
 - Page 2 Section 2.2 PPE

- 3. Staff Requirements**
 - Page 3 Section 3.1 Team Breakdown

- 4. Material Handling**
 - Page 4 Section 4.1 TERRATILE®
 - Page 4 Section 4.2 Forklifts
 - Page 5 Section 4.3 Trolleys
 - Page 5 Section 4.4 Other Vehicles

- 5. Pre-Lay Procedures**
 - Page 6 Section 5.1 Stringlines
 - Page 6 Section 5.2 Stringline Diagram 'A'

- 6. Laying Procedures**
 - Page 7 Section 6.1 Stringline Diagram 'B'
 - Page 7 Section 6.2 Stringline Diagram 'C'
 - Page 8 Section 6.2.1 The Step Pattern
 - Page 9 Section 6.3 Stringline Diagram 'D'
 - Page 9 Section 6.4 Laying Direction

- 7. Locking Procedures**
 - Page 10 Section 7.1 Camlocks
 - Page 10 Section 7.2 T-Bars
 - Page 10 Section 7.3 Damaged Camlocks

- 8. Building Mixer / Delay Towers**
 - Page 11 Section 8.1 Load Spreading

- 9. Accessories**
 - Page 12 Section 9.1 Cable Duct Tiles
 - Page 13 Section 9.2 Edge Trims
 - Page 14 Section 9.3 Ramps

- 10. Lifting Procedures**
 - Page 15 Section 10.1 Prior to Lifting
 - Page 15 Section 10.2 Equipment Checklist
 - Page 15 Section 10.3 Removal

- 11. Cleaning and Maintenance**
 - Page 16 Section 11.1 Equipment List
 - Page 16 Section 11.2 System Maintenance
 - Page 16 Section 11.3 Damaged Camlocks
 - Page 16 Section 11.3.1 Removal
 - Page 16 Section 11.3.2 Replacement

1.1 Field / Pitch Preparation

1.1 Grass Length:

The grass should be gradually cut to its lowest length and be watered as normal – do not over water as this will cause problems. Grass should not be watered prior to installation of TERRATILE®, always allow the grass to dry before installation commences.



1.2 Humidity Level / Extended Period of Use:

Consider the use of a fungicide and or growth retardant if the humidity level is high or if the system is in place for an extended period of time.

2. Health & Safety

2.1 Risk Assessments:

Risk Assessments should be undertaken prior to commencement. An example is available on this website but it should be noted that this is an example only and specific modifications will be needed for each individual site.

2.2 PPE:

All personnel should be issued with PPE (personal protection equipment) including, but not limited to strong boots preferably with reinforced toe caps, high visibility vests and gloves. Advice should be provided on wearing appropriate clothing for specific weather conditions e.g. hats and shirts when working in full sun.

3. Staff Requirements

- 3.1 To achieve a fairly effortless lay, a team of around 32 people should be employed with a break down as follows:

2 Supervisors plus Groundsman in Ultimate charge.
6 Teams of 4 – each team with 2 Placers and 2 Lockers.
4 Floaters, who move around as and where required, provide relief for rest breaks.
2 qualified forklift Drivers.

(The 2 Placers and 2 Lockers should periodically change over to give the Placers a rest.)

4. Material Handling

- 4.1 Forklift Drivers should be given specific instructions relating to site access and strategic placement of materials to minimize the distance travelled between the storage area and the installation area. At stadiums that have a hard track around the field area it may be possible to place materials on their pallets adjacent to the field.



- 4.2 Trolleys should be provided to keep movement of blocks by hand to a minimum. A full pallet should be loaded onto each trolley at the edge of the field by forklift.



Under no circumstances should the forklift be driven onto the field or on top of the Terraplas Product.

- 4.3 Trolleys should only be used on top of the Terraplas Product – particularly when full, and wherever possible all foot traffic should stay on the TERRATILE®.
- 4.4 Utility vehicles and Tractors fitted with Turf Tyres may be used on top of TERRATILE®.

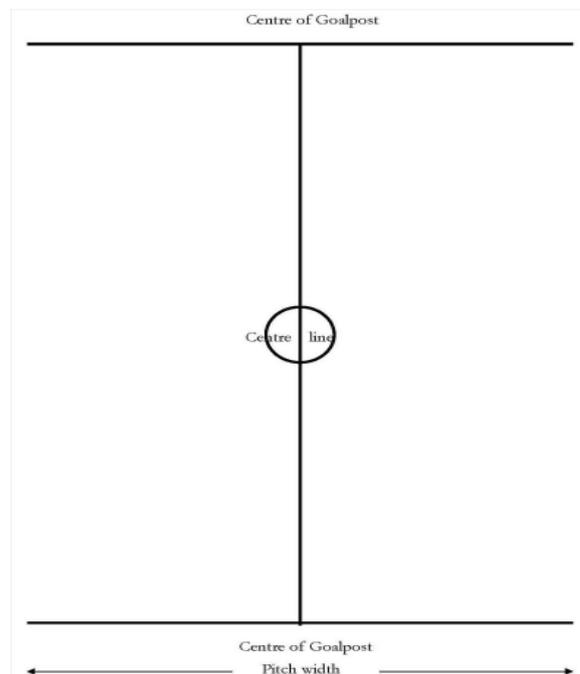


5. Pre-Lay Procedures

- 5.1 For correct laying of TERRATILE® it is essential to start exactly 'square', therefore time should be spent initially to make sure that there is a perfect 'stringline' in both directions.



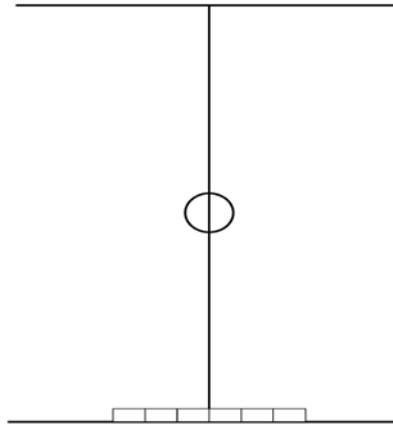
5.2 *Stringline Diagram 'A'*



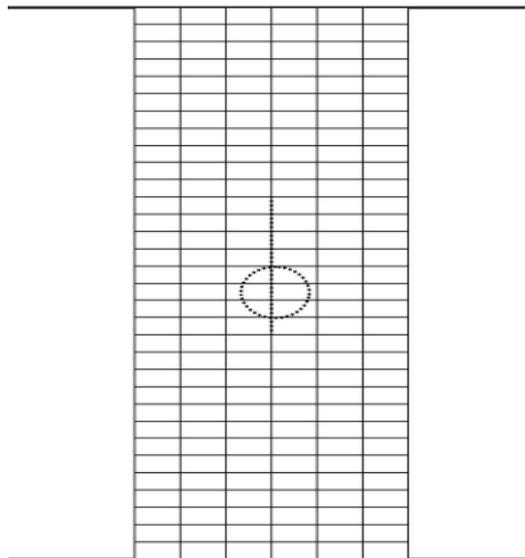
6. Laying Procedures

- 6.1 The first line of tiles going up and across the field needs to be placed exactly on the 'stringline' and each block fully locked to those adjacent to it, prior to pulling out the expansion joints to their maximum.

Stringline Diagram 'B'



6.2 *Stringline Diagram 'C'*

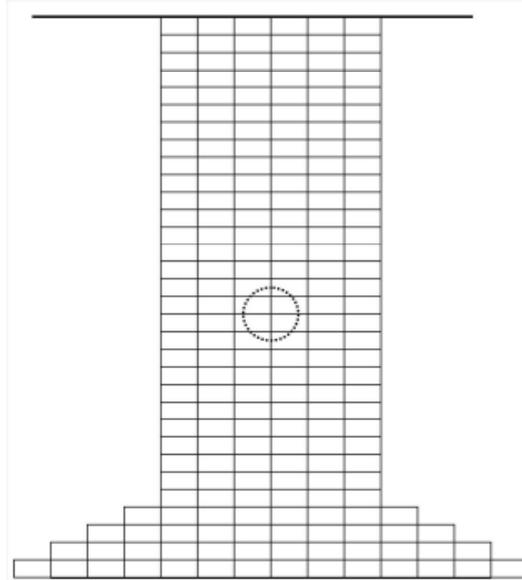


6.2.1 The 'Step' Pattern

Having achieved perfectly square lines of tiles as shown in Diagram 'C' the teams should commence placing and locking the blocks – 3 teams in each direction always starting from the centre of the field and working outwards in the 'step pattern'.



6.3 *Stringline Diagram 'D'*



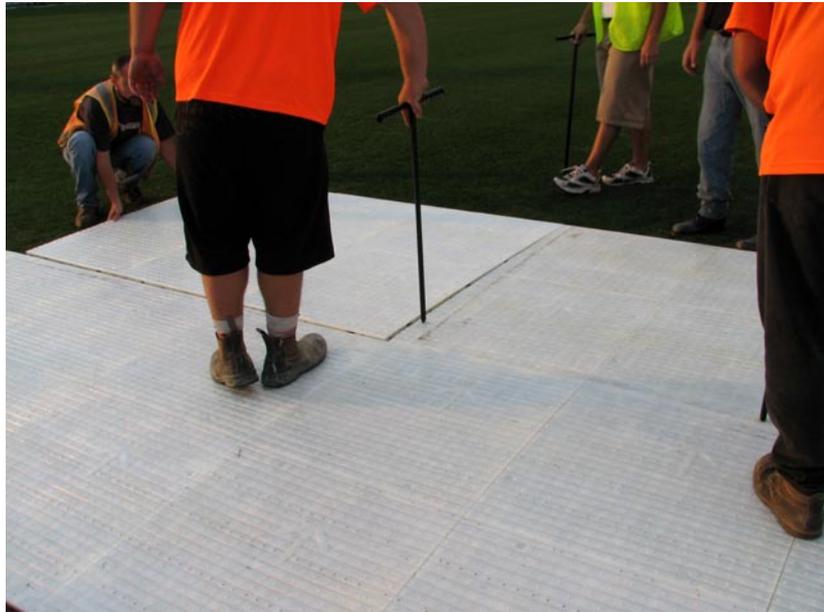
It is extremely important for the Placers to accurately position the tiles so that the Lockers do not have to move them – this speeds up the operation considerably and avoids attempts to lock misplaced tiles which cause misalignment and tightness.

6.4 3 teams lay in each direction:

- Team 1 always keeps ahead of Teams 2 and 3
- Team 1 locks first fully laid row
- Team 2 locks into Team 1's first row
- Team 3 locks into Team 2's row etc.

All Teams must remember camlocks run in a horizontal and vertical direction and all must be locked.

7. Locking Procedures



- 7.1 It should be remembered that the camlocks are designed to hold the tiles in position not pull them into position, so accurate placement of the tiles is vital.
- 7.2 The T-Bar used for locking the camlocks must be fully inserted into the slot on the top of the camlock before attempting to turn it. The T-Bar only requires one 90 degree turn in a clockwise direction to lock and one 90 degree turn in an anti-clockwise direction to unlock. Do not try and force any further as this will damage the lock
- 7.3 If any camlocks are damaged to the point where they cannot be locked these should be changed immediately, otherwise the system will not be fully locked which may result in misalignment. .(See Page 5 Section 9.3 Changing Damaged Camlocks.)

8. Building Mixer / Delay Towers

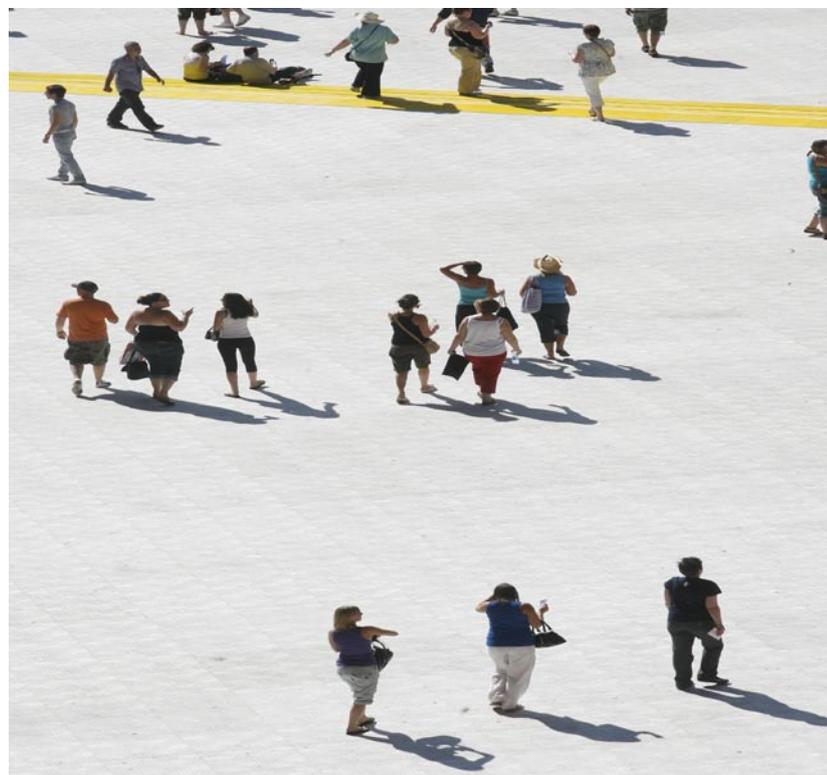
- 8.1 To protect the grass it is preferable to build the Mixer and Delay Towers on top of TERRATILE®. Timber is the best way of spreading the load and the photographs below illustrate how this is done.



9. Accessories

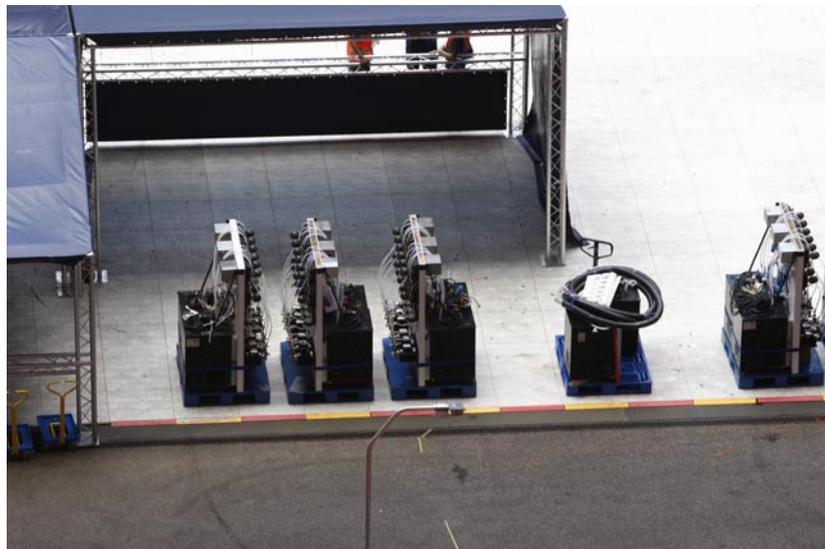
9.1 Cable Duct Tiles

Health & Safety make it compulsory that the public are adequately protected from cabling. The use of Cable Ducts, shown here in yellow, ensures public safety and makes it possible for cables to go in any direction.



9.2 Edge Trims

To protect the public from 'trip hazards' Edge Trims in alternating colours of red and yellow can be placed under TERRATILE® quickly and easily.



9.3 Ramps

To comply with D.D.A. (A.D.A.) rules, wheelchair Ramps can easily be positioned where required.



10. Lifting Procedures

- 10.1 Before any removal procedures are commenced it is essential to brush the System surface both ways ensuring no debris goes on to the field.



- 10.2 Prior to lifting any of the panels, ALL camlocks must be undone. Allocate each person a line to do, both along its length and width.
- 10.3 The removal procedure is a direct reversal of the lay – each pallet is taken to the side of the field, where the forklift takes the pallet off the trolley prior to banding.

Under no circumstances should a full pallet be moved without banding.

11. Cleaning and Maintenance

- 11.1 To maintain your TERRATILE® System in pristine condition it should be thoroughly cleaned between events using a high pressure washer and brush to remove any stubborn marks, chewing gum etc.

Under no circumstances should any silicone based cleaning fluids be used.

- 11.2 Personnel should look for any broken camlocks, missing feet, pins or bungs and replace as required. Once the system has been cleaned, maintained and banded it can be returned to storage. If stored outside covering is recommended. This ensures your TERRATILE® System remains in perfect condition and is ready for its next use.



11.3 Damaged Camlocks

- 11.3.1 In the event of a camlock becoming damaged, replacement is very quick and easy. The System is supplied with all tools required and consists of a metal drift, a block of wood and a rubber hammer.
- 11.3.2 The old camlock is removed by lifting the edge of the tile in the area of the camlock onto the wooden block. Place the drift in the T-Bar slot and knock out using the rubber hammer. The new camlock is placed underneath the tile in its correct position and using the rubber hammer on top of the tile pops the cam into position.