

## PLAYMAT ACCESSIBLE ROUTE – Specification

### DESCRIPTION

**PLAYMAT** mats consist of bonded recycled rubber crumb bound together with a foam core and when used in conjunction with the **EVERPLAY** Foam Timber can provide an accessible route through a loose-fill playground surface. When combined with the SMARTE system, the PlayMat can be used in a situation with a fall height up to 3600mm (11.8'). The accessible route can be either a “T” from the entrance of the playground to the transfer platform or as the 1524mm (5') minimum width route through the entire playspace connecting ground level play components. To facilitate these options, the PlayMat is available as a 4'x 4' mat with bevels or 4'x 5' mat with square edges.

This specification shall be utilized in conjunction with the **EVERPLAY** International Inc. document “**EVERPLAY** PlayMat Instructions” for the termination to hard surfaces, cutting and assembly of the **PLAYMAT** mats as an accessible route. This specification provides information with regard to the preparation of the sub-base, base and the provision and installation of the **EVERPLAY** foam timbers.

### Typical Use

The Americans with Disabilities Act, Architectural Barriers Act and Annex H of the CSA Z614-07 set requirements for the performance of the Accessible Route. The **PLAYMAT** can be used to meet these requirements within a playground that is intended to have loose-fill protective surfacing.

One of the requirements of the accessible route within the use zone of the playground structures will be, to meet the requirements for impact attenuation as laid out in the ASTM F1292 and CSA Z614. The **PLAYMAT** route will meet these requirements when tested with a Triax2000 to these standards.

### Constraints

The sub-base and base should be installed under conditions that will not compromise the function of this part of the project. The running and cross-slope of the base shall mirror final grade for the accessible, which must meet the requirements of the appropriate standard.

## INSTALLATION PROCEDURE

### 1.0 Excavation of Playground

- 1.1 The entire playground area will be excavated to a minimum of 300mm (12"). Additional depth must be excavated where drainage or other sub-surface installations are required.
- 1.2 The suitable entrance to the playspace for the accessible route from the external hard surface is determined and the accessible route, “T” or full route is laid out.
- 1.3 The accessible route is compacted and a geotextile is placed on the sub-base for the width of the accessible route plus 300mm (12") on either side of the accessible route.

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### 2.0 Base Preparation

- 2.1 The sub-base must have not any voids and be compacted to 95% SPD and graded to the mirror the contours of the final surface and 300mm (12") below final grade.
- 2.2 A geotextile, Terrafix 200R or equal is placed over the prepared sub-base.
- 2.3 Granular base will consist of a split compactable granular (3/4" crushed stone with fines or granite screenings) material. The granular base will be a minimum of 80mm (3") and compacted to 95% Proctor density. Local conditions will dictate if additional granular is required.  
Note: the granular base installation shall be inspected and confirmed for meeting the requirements of this specification.
- 2.4 A geotextile, Terrafix 200R or equal will be installed over the compacted granular base.
- 2.5 The depth of the granular base from finished grade is determined by the expected final settled depth of the loose-fill surface and the required fall height of the installed surface.

### 3.0 Installation of EVERPLAY foam timbers

- 3.1 The perimeter of the accessible route is laid out in the geotextile.
- 3.2 The EVERPLAY foam timbers are placed along the perimeter of the accessible route so as to have the timbers within the width of the accessible route with the outside edge of the foam timber being flush to 12mm (1/2") inside the outside edge of the PlayMat.
- 3.3 The EVERPLAY foam timbers are stable enough to remain in place and vertical during the installation, however a temporary support can be used. Once the foam timbers are bonded together and in place, they will form a stable box. At this stage any temporary supports should be removed
- 3.4 The top of the foam timber will be 50mm (2") below the final grade of the accessible route to allow for the thickness of the PlayMat. The slope across the accessible route shall be not greater than 2% and although the running slope can be as much as 6%, it would be advisable to set the running slope to less than 2%. This will ensure the functional longevity of the accessible route.
- 3.5 The bonded foam timbers should provide stability; however supports could be placed across the tops of the timbers while the interior base and SMARTE bags are placed.
- 3.6 It is optional to lay a geotextile within the "U" shaped space created by the rubber timbers in preparation for the compactable materials. This filter cloth is at least 3600mm (12') wide to allow the geotextile to underlay and envelope the compactable materials. Although not required, this can promote longer term stability of the accessible route.
- 3.7 The tops of the foam timbers may be covered with plastic to ensure that they remain clean and dry until the EVERPLAY adhesive is applied, to adhere the PLAYMATS. Failure to do this will require that the tops of the foam timbers are cleaned prior to the application of the adhesive.

### 4.0 Installation of base under PlayMats

- 4.1 For fall heights under 1220mm (4')
  - 4.1.1 The compactable split granular material (3.4" crushed stone with fines or special sand screenings) is installed in maximum 150mm (6") lifts. Each lift is compacted to 95% SPD, with the final grade of the compacted base being flush with the tops of the foam timbers
- 4.2 For fall heights between 1220mm and 3650mm (4' and 12')

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- 4.2.1 The compactable split granular material (3.4" crushed stone with fines or special sand screenings) is installed in maximum 150mm (6") lifts. Each lift is compacted to 95% SPD with the final grade of the compacted base being 100mm (4") from the tops of the foam timbers
- 4.2.2 SMARTE bags are placed beside each other and between the foam timbers allowing for some looseness and not bunching of the bags. The bags are placed uniformly in a brick style pattern.
- 4.2.3 The SMARTE bags are placed as close as possible to fixed objects, however any open space left between posts and bag edges will be filled with loose rubber chunks.
- 4.2.4 Loose rubber chunks 10-12mm (3/8-1/2") are placed into all voids between bags and to a thickness of 25mm (1") over the bags.
- 4.2.5 The surface of loose rubber over the bags is compacted with a vibrator plate compactor. There will need to be a hard surface, such as plywood, placed between the loose rubber and the compactor to facilitate this operation.  
Note: Once the compaction is complete, care must be taken to not disturb the smooth rubber. This can be done by placing cardboard on the rubber to facilitate traversing the surface during the installation of the PLAYMATS.
- 4.2.6 The PLAYMATS are cut and assembled as per the documentation in "EVERPLAY PlayMat Instructions".  
Note: the EVERPLAY PlayMat Instructions provide for either a shiplap jointing when the bevelled mats are used to create the "T" and butt joints with the 4'x 5" square edged mats are used to create an accessible route.
- 4.2.7 EVERPLAY adhesive is applied to the top of the foam timbers and the PLAYMAT is brought into firm contact with the foam timber.
- 4.2.8 At joints between PlayMats, the stability strip is placed under the seam, equally under each mat. The stability strip will support level of the mats across the seam until the adhesive cures.
- 4.2.8 The accessible route shall be left without traffic for a minimum of 24 hours to allow adhesives to fully cure.

### **5.1 Installation of the EVERPLAY PlayMat44 and PlayMat54**

- 5.1.1 Installation of the "T" utilizing the 4'x 4' bevelled PlayMat44 will be as per the PlayMat44 Assembly Instructions available at [www.EVERPLAY.com](http://www.EVERPLAY.com)
- 5.1.2 Installation of the 5' Accessible Route with the PlayMat54 will be as per the PlayMat54 Accessible Route instructions available at [www.EVERPLAY.com](http://www.EVERPLAY.com)

### **6.0 Cutting**

- 6.1 The PLAYMAT is cut using an exacto type knife.
- 6.2 Determine the line of the cut through accurate measuring.
- 6.3 When cutting, the edge should be protected through the use of a metal straight edge.
- 6.4 When cutting, Kevlar or steel mesh gloves must be worn

### **7.0 Fixing and Bonding of PlayMats**

- 7.1 The PlayMats are fixed to the entrance of the playground using the metal support and threshold as per the assembly instructions.

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- 7.2.1 For the PlayMat44, once the shiplap edge is created, the two part marine epoxy is applied to the joint between the bottom of the mat and the metal support and the two surface are brought together. There shall be no traffic on the bonded edge for a minimum of 24 hours. Should the adhesive escape from the joint during the cure, it can be cut off or smoothed with a grinder following the cure.
- 7.2.2 For the PlayMat54 there is a vertical edge that allows for a butt joint. The PlayMat54 is aligned using the foam timbers as an edge and the joint is supported with the “support strip” to ensure a smooth transition between mats. The EVERPLAY adhesive is applied and there is to be no traffic on the surface for 24 hours.
- 7.2.3 Where the EVERPLAY foam timbers are used to support the PlayMats are placed and lowered onto the timbers. Once the PlayMats are in place, they are lifted and the EVERPLAY adhesive is applied to the top of the EVERPLAY foam timber and the PlayMat is lowered and pressed on to the EVERPLAY foam timber to ensure contact. These edges are not to be disrupted for 24 hours.

### 8.0 EVERPLAY Adhesive

- 8.1 The EVERPLAY adhesive is a single component, moisture cured, thixotropic polyurethane that may be used as purchased or the cure can be accelerated with the used of an accelerator and/or activator as required by conditions of temperature and humidity and utilized according to the instructions of EVERPLAY International Inc. Caution must be exercised with the use of the accelerator and activator as that can cause “foaming” and the overflow from the joint will have to be removed after the cure. Removal of any overflow of adhesive can be removed with a grinder, with care taken not to damage the surface of the PlayMat.
- 8.2 Should there be a gap in the joint as a result of the site conditions or cutting of the PlayMats, the gap can be carefully filled with the EVERPLAY adhesive. Should the EVERPLAY adhesive press out of joint, it can be smoothed and removed following the cure. Removal of any overflow of adhesive can be removed with a grinder, with care taken not to damage the surface of the PlayMat.

### 9.0 Cleaning

- 9.1 The tools used for the installation of the PLAYMAT can be cleaned with gasoline once the installation is complete. Care must be taken not to have the gasoline come in contact with the PLAYMAT Mats. **Note:** Gasoline is flammable and should be used with caution.

### 10.0 Materials and Tools

- 10.1 The following materials will be required:

PLAYMAT Mats	PLAYMAT adhesive, activator and accellerator
EVERPLAY foam timbers	plastic sheeting
2x4 wood (optional)	bracing materials (optional)
geotextile	mason line
entrance support	Seam stability strip
- 10.2 The following tools will be required:

square	exacto knife & blades
Kevlar or steel mesh gloves	vibrating plate compactor
Digital level and straight edge	drill

## **WARRANTY**

EVERPLAY warrants that the PLAYMAT Mats listed in this specification conform to the formulations and standards of EVERPLAY International Inc. This warranty is in lieu of any other warranties expressed or implied, including, but not limited to any implied warranty of merchantability or fitness for a particular use. These mats are always to be used in conjunction with loose fill materials that are properly maintained and kept to the appropriate level below and above the PLAYMAT. To maintain the warranty in effect, the PLAYMAT maintenance procedures must be adhered to. Note that fading and wear of the pigment or painted surfaces are considered normal wear and tear. Not included is vandalism or other willful acts.

The sole and exclusive remedy of the buyer against EVERPLAY International Inc. shall be for the replacement of the Mat for a period of two years from the time of purchase. Mats must be returned to the factory at the cost of the installer. No other remedy, including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental, or consequential loss, shall be available to the buyer.

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