



“Do It Yourself” Installation Guide

Install Instructions for: Kids Kushion Play Ground Tiles

Materials Needed:

- Rubber Gloves
- Safety Gloves
- Razor Knife with Extra Blades
- Chalk Line
- Carpenters Square
- Paint Roller Frames, Roller Extensions and Fluffy Rollers
- Paint Roller Trays
- Water Spray Bottles (Mist)
- Rubber Hammer
- Measuring Tape
- Serrated Filet Knife
- Compass with Marker Pen (to mark diameter of equipment supports)
- Aluminum Clips (if required)

Prior to Installation:

The Kid Kushion mats and transition pieces intended for this installation have been shipped to you on pallets with the mats shrink wrapped and strapped. Once the packing is removed, please inspect the exposed edges for any damage. Next confirm shipment to packing list and notify supplier of any damage or shipment discrepancies.

Installation surface should be clean and dry prior to installation. Mats must be clean and dry prior to installation. Moisture acts as a catalyst to the Kid Kushion Adhesive, so dry mats and surface are essential.

Temperature variations will also effect the tiles. Tiles will contract in cold weather and expand in warm weather. This is a natural effect of the rubber and is to be expected. This will not lessen the impact resilience of the mat as in meeting the ASTM Standard F1292 as they pass the resilience tests at both low and high temperatures.

Review engineering plans for layout and ensure that the Consumer Product Safety Commission recommendations for a fall zone are met (Handbook for Public Playground Safety) and contact owner/agency with any discrepancies.

Adhesive:

Kid Kushion Adhesive is available in either 1 gallon or 5-gallon containers. The adhesive is used to secure the outside perimeter (mats, corners, and/or ramps) of each installation. It can also be used to secure the interior mats, if required. Approximate coverage is 60 to 80 square feet per gallon of adhesive. The adhesive is to be rolled into place (thick film) onto the asphalt or concrete base surface. A misting of water can be added (once adhesive is rolled into place) to act as a catalyst if a faster cure time is required. STORE adhesive in a dry place. Do not subject Adhesive to freezing temperatures under any conditions.

Transition Pieces:

For the 2 ½” thick Kid Kushion, we have transition pieces (Ramps) which are 48” long x 8” wide, reducing from 2 ½” down to 3/8”. 90 degree inside and outside corners are also available.

For the 3 ½” thick Kid Kushion, our Ramps are 48” long x 12” wide, reducing from 3 ½” down to 3/8”. Corner Ramp pieces are 48” long x 12” wide with a 45 degree angle cut left to right or right to left. One “Outside Left corner piece” and one “Outside Right corner piece” are required for each 90 degree corner of a 3 ½” Kid Kushion Ramp section.

Clips:

Each 2 ½” and 3 ½” mat is molded with a clip index position in the bottom perimeter. There are two indexing positions on each edge or eight clip positions in each mat. The clips are designed for permanent installation and may damage the area of the mat surrounding the clip attach point if removed after installation. The clip installation method unitizes all of the interior mats as a single unit. Perimeter mats (or transition pieces) are recommended to be glued in place; as well as mats that have cutouts to allow for the playground equipment supports. The quantity of clips required for a typical installation is 3 clips per tile to be clipped. Contact your Kid Kushion distributor for exact number required for your particular installation.

Sub Surface Requirements for Kid Kushion Tile Installations:

Kid Kushion tiles may be applied to concrete, asphalt, wood, and compacted crushed gravel/geotextile overlay sub surfaces.

All sub surfaces should be properly excavated and applied to insure:

Sub surface drainage.

Non-Separation of concrete layers.

Prevention of Heaving due to freeze/thaw or unstable ground conditions.

The stabilization of the sub surface is the sole responsibility of the installer and/or owner.

Sub surface installation should assure good drainage of the area by either a well-defined gradient of the surface or well-placed drainage pipe in lower spots of the installation.

The Kid Kushion tiles shall be adhered to the concrete, asphalt, geotextile or wood surface using Kid Kushion adhesive and/or clipping system following the installation instructions for glue down installations. Your distributor should be contacted regarding the best application conditions for your installation.

Example of Proper Alignment of Mat Pieces (Before “Flush Application”):

Concrete Surface

Asphalt Surface

Wood Surface

Crushed Gravel / Geotextile Sub Surface

Concrete Surfaces:

Concrete surfaces must be thoroughly cured and free from hydrostatic pressure before installing Kid Kushion tiles (28 days after pour).

All surfaces should be flat, level, clean, and dry before applying adhesive for installation. The concrete finish should be reasonably smooth to reduce the amount of adhesive required.

Concrete surface should be free from paint, dirt, oil, or other surface contamination before applying Kid Kushion adhesive.

Any separation of concrete layers, heaving, etc. is the sole responsibility of the installer and/or owner.

Assure good drainage of the area by either a well defined gradient of the surface or well placed drainage pipe in lower spots of the area.

Asphalt Sub Surface:

Asphalt sub surface must be hard, level, and free of grease, oil, and other contaminants. Avoid installation on new asphalt until surface oil has had time to dissipate (30 days after compacting) and drainage can be evaluated.

Any separation of asphalt or blacktop layers, heaving etc. is the sole responsibility of the installer and/or owner.

Insure good drainage of the area by either a well-defined gradient of the surface or well-placed drainage pipe in lower spots of the area.

Wood Sub Surfaces:

The wooden sub surface should be properly secured to ground to avoid any ground shifting (as by pile or other means) and subsequent sub floor movement. The sub floor should be protected and sealed from moisture prior to installation of Kid Kushion tiles. The sealer should be completely dry before installation. The sealer should be compatible with Kid Kushion adhesive before tiles are applied (avoid use of surface treatments that leave oil residues on surface).

The wood surface should be free from any protruding nails and screws. All damaged wood should be replaced on old surfaces.

The surface should be level, clean and dry before application.

Crushed Gravel / Geotextile Sub Surface:

Compacted gravel surfaces are the sole responsibility of the installer/owner to provide a stable compacted sub surface with proper drainage. Standard sub surface of 4” minimum medium to coarse crushed gravel (3/4” minus) moisten and compacted to 95% proctor. A ¼” graded medium sand compacted should be used to smooth the surface. A geotextile filter cloth is then put over the top of the compacted surface. A 12” overlap on all joints is required. Secure joints with duct tape or mono compound adhesive.

The installation should be recessed the depth of the tile plus a minimum 4” of compacted gravel as described above. An edging of concrete around the perimeter is recommended to contain tiles to play area. The tiles should then be glued to the geotextile cover fabric, by applying Kid Kushion adhesive to both geotextile and tile base. Follow the instructions as outlined in the Kid Kushion installation instructions. For crushed gravel/geotextile sub surface please call your distributor for further details as required.

Prior to Installation Checklist:

Insure that the base surface is clean, level, and dry. Tiles must be dry.

Check ambient air temperature. Minimum temperature for installation is 50 degrees and rising.

Please note: All play equipment must be permanently installed prior to mat surfacing installation.

Surfacing Layout:

Lay tiles (transition pieces if required) from the further corner along base edge in two directions. (90 Degrees)

Lay out the rest of the installation, leaving out any tiles that must be “cut to fit”. Keep edges straight and aligned horizontally and vertically.

Installation of Surfacing Product:

Once installation layout has been completed; adhere all perimeter pieces. If drainage is a concern, allow a ¼” gap between each Ramp piece for drainage. Install balance of surfacing using generally accepted installation procedures in compliance with engineering detail drawing for installation.

Interior surfacing can be totally adhered (glued) to base surface; unitized as one continuous piece using installation clips affixed at index points in each mat; or, left unattached to base surface and left to float.

Adhesive:

Kid Kushion adhesive is a one part “glue” and is ready to use when poured out of container. Do not open container prior to time for use in installation. A misting of water may be applied to the adhesive and will act as a catalyst to decrease cure time.

Adhesive is spread in a thick film coat on the base surface and each gallon will adhere approximately 60 to 80 square feet of surfacing.

Cure Time:

The cure time of Kid Kushion Adhesive is dependent on several factors. The moisture levels and temperature levels of installation surface, as well as, the ambient air temperature and relative humidity will effect the time required for the cure of the adhesive. Generally, the higher the temperature; the shorter the cure time, and the higher the moisture levels, the shorter the cure time.

The following information is provided based on trial installations preformed with the Kid Kushion Adhesive to determine approximate cure times under various temperature and humidity conditions.

Temperature	Relative Humidity	Approximate Cure Time
115° F	> 50%	4 hours +
70° F	> 50%	18 hours
45° F	> 50%	30 hours

Approximate cure time can be decreased with addition of a catalyst (water).

Once the adhesive is in place and has been allowed to penetrate existing hard surface, (and prior to mat placement) a light fine spray of water (catalyst) on the adhesive will shorten the cure time. The adhesive will react to the spray by forming small bubbles (frothing appearance). Then, place the Kid Kushion mats in the normal fashion, as per the installation instructions.