



Weight Strength Rubber Gym Mats

INSTALLATION AND MAINTENANCE MANUAL

Greatmats.com
117 Industrial Ave
Milltown, WI 54858

email: info@greatmats.com
Voice: 877-822-6622
Fax: 866-895-5550

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INSTALLATION METHODS, TOOLS, AND BASE PREPARATION

I. RECOMMENDED INSTALLATION METHODS FOR 1" WEIGHT STRENGTH RUBBER GYM MATS

INTERIOR INSTALLATION		
24"x24"x1"		
Surfaces	Dowels	Full Glue
Concrete	A	R
Asphalt	A	R
Plywood	A	R
Compact Gravel	N/A	N/A
Wood or Tile	R	N/A
Resilient Flooring	R	N/A
Carpet	R	N/A
R= Recommended A=Acceptable N/A= Not an Approved Installation Method		

NOTE: For **outdoor** installation instructions please contact our Customer Service department toll free at 1-877-822-6622.

II. TOOLS / MATERIALS REQUIRED

- Two tape measures - 25' and 50'
- Chalk line - white only!
- Saber saw (Jig saw) or band saw
- Blades for saber saw (7-10 teeth per inch, wood type)
- Utility knife with heavy-duty blades
- Framing square/metal straightedge
- Silver or gold color paint pencils
- Standard size caulk gun
- 4" slot blade screwdriver
- Notched trowels -1/8" square notch
- Safety glasses
- 1-1/2" flexible putty knife
- Coveralls
- Kneepads
- Solvent safe rubber gloves
- Rags
- Trash bags
- Push broom or shop vac
- Mineral spirits
- Installation instructions
- String line
- Cutting table (shipping pallet)
- Dustpan
- 2-3 lb. sledge hammer or rubber mallet
- 2'x 4' to use as tapping block
- Adhesive

III. SITE WORK

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

A. Site Elevation

- On grade installation - The finished installed height of the Weight Strength Rubber Gym Mat surface will be equal to or slightly higher than the perimeter grade but not more than 1" higher unless approved by the project engineer.

BASE PREPARATION

2. Above grade installation - The installation of Weight Strength Rubber Gym Mat over existing decks or slabs is referred to as “above grade installation” and will usually require the use of reducers around the perimeters of the area to transition smoothly back to the floor elevation, unless the site terminates at a wall or other vertical surface.

B. Site Slope/Drainage

1. When preparing a new hard base, a minimum slope equal to 1” per 10’ of run shall be applied to the finished surface with slope toward the drain basin and drain trough or down-grade side of the site, whichever applies to your project.
2. An acceptable drainage system needs to be put in place to eliminate standing water.

IV. BASE OPTIONS

A. Hard Base Construction

1. Concrete Base:
 - a. The base will be constructed of cast-in-place, non-structure, Class A concrete that will develop a minimum compressive strength of 3,000 PSI after 28 days cure (minimum thickness = 4”). Care should be taken to provide for the stated slope. The base should be free of depressions that would pond water. A light broom finish is best for maximum adhesion of the Weight Strength Rubber Gym Mat. New concrete slabs should cure for a minimum of 28 days before installing Weight Strength Rubber Gym Mat.
2. Paved Asphalt Base:
 - a. Course aggregate mixtures will provide a stable base. The aggregate size best suited for the adhered system is 3/8” to 1/2”. Do not use asphalt mixtures that contain a high percentage of fines, as they are not stable in hot weather and may become soft enough to allow the tiles to slide in high use areas.
 - b. The soil sub grade must be compacted with a minimum of two passes using a 10 ton vibratory roller with no soft or moving areas upon completion. The crushed stone base must also be compacted with a minimum of two passes using a 10 ton vibratory roller. The binder and wear courses of the asphalt must both meet 95% of the theoretical maximum density of the JMF (Job Mix Formula).

Total Passing Sieve	Percent by Weight
1/2”	100
3/8”	80-100
#4	45-90
#8	30-65
#50	5-25
#200	2-8
Asphalt Cement	6-8

- c. New asphalt surfaces should be allowed to cure for 28 days before the adhered Weight Strength Rubber Gym Mat system is laid.

GENERAL INFORMATION

I. GENERAL INFORMATION

- A. 1" Weight Strength Rubber Gym Mat may be installed over most concrete, wood, tile, or carpeted floors. The floor over which 1" Rubber Gym Mat Weight Strength is installed must be level, in good condition, and clear of dirt and loose debris.
- B. For installations requiring adhesion to concrete, maximum moisture vapor emission of the concrete must not exceed 5.5 lbs. per 1000 sq/ft. in a 24 hour period as measured by the calcium chloride moisture emission test conducted in accordance to ASTM F1869. Moisture can also be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If levels are high using either test method, then a recommended vapor retardant must be used. If the emissions exceed the limitations, the installation should not proceed until the situation has been corrected.

NOTE: Fully adhered installation procedures can be found on page 8.

- C. If 1" Weight Strength Rubber Gym Mat is being installed wall-to-wall, the tile may be doweled together, with the walls serving to contain the outer rows of tile. Tiles that are not contained by walls, either at openings in the wall (i.e. doorways) or freestanding, should be contained by adhering the outer tiles and 1" Weight Strength Rubber Gym Mat ramps around the outer perimeter. The adhered tile and ramps provide a transition from the 1" thick tile to the original floor level. The perimeter tiles and ramps should be adhered using E-Grip III adhesive with a 1/8" square-notched trowel indoors over substrate.
- D. Installation should not begin until after all other trades are finished in the area.
- E. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F for 48 hours before, during, and after the installation.
- F. Unpack tiles and allow them to sit in the area to be installed. Tiles and adhesive must be acclimated at a uniform room temperature for a minimum of 48 hours prior to installation.

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color-tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjusted as necessary.

NOTE: Weight Strength Rubber Gym Mat is manufactured from recycled materials and slight variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.

INTERIOR DOWEL INSTALLATION

II. SITE LAYOUT

- A. Sweep area clear of all dust and loose debris.
- B. Determine a starting point for the first course of tile to best suit the site area. For irregular site configurations, the best starting point is often in the center. This will ensure a symmetrical finish for tiles that require trimming along the perimeter. Other installations are best started in the corner or along one edge that represents the length or width dimension of the site.
- C. Mark two points on the base surface at an equal distance from the edge of the installation. These points should be located near the opposite ends of the site in the length-wise direction.
- D. Snap a chalk line through the established points.
- E. Measure the length of the site along the chalk line. Mark a point at half the distance of the site.
- F. Using the 3-4-5 right triangle method, snap a chalk line to form a 90° angle to the previously established length-wise chalk line. These perpendicular reference lines will serve as a guide for laying the first course of tile.
- G. Dowel placement - Insert a dowel pin in each of the three dowel holes on two adjacent sides of the tile. Tap the dowel into the molded hole until the length of the dowel is showing beyond the edge of the tile or use a dowel setting tool available from Greatmats.com. Install dowels in enough tiles in this manner to lay one course line.

III. LAYING TILE FOR STARTER COURSE

- A. Place the first doweled tile at the intersection of the chalk lines with one doweled side facing inward along the course line.
- B. Join the next tile in the starter course to the original tile by pushing it against the original tile, engaging the dowel holes in the second tile with the dowels in the original tile.
- C. The assembly of tiles using dowels is a two-man job, with one man working on top of the last tile laid to secure it, while the other worker is applying force to the tile being laid.
- D. Continue to assemble tiles in this manner until the row has been completed across the entire course.
- E. A small 2-3 lb. hand sledge hammer may be used to aid assembly by striking the side edge of the tile on the side close to the doweling point, while pressure is applied to the tile in the direction of the doweling by the second workman. A sledge and 2 x 4 may be used to tightly dowel several tiles. These techniques will allow the tile edges to be butted tight together.

INTERIOR DOWEL INSTALLATION continued**IV. LAYING THE SECOND AND SUBSEQUENT TILE COURSES**

- A. Place dowels in the tile to be used for the second course as done previously. Join the first tile in the second course to the first tile in the first course.
- B. The second tile in the second course is now ready for placement. This tile will be doweled on two sides. First, dowel the tile to the original tile in the second course, placing the dowels from the first course of tiles above the tile being doweled.
- C. Now dowel the second side of the tile by lifting the tiles to be joined together and inserting one dowel at a time with the appropriate dowel hole.
- D. Continue to assemble tiles in this manner until the row has been completed across the entire course. Complete the third and subsequent courses in a similar manner.

V. FITTING THE OUTER COURSE TILE

- A. In most wall-to-wall installations, the tile in the outer course will have to be cut to fit. Tile may be cut using a heavy-duty utility or carpet knife and a straight edge. A saber saw utilizing a 7-10 TPI wood cutting blade also works well. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital settings will produce the best results. A cutting table used to support the work is required during cutting. A standard shipping pallet works well for this purpose for in-field use.
- B. The outer course should then be installed as described in item C above, utilizing the remaining dowel holes. The cut edge should face the wall.

VI. ADHERING THE OUTER COURSE AND RAMPS (ADA RAMP INSTRUCTIONS ON PAGE 9)

- A. If required, ramps can be cut in the same manner as tiles. If ramps are used at a corner, each ramp should be miter cut at a 45 degree angle.
- B. After ramps have been properly cut, ramps and outer tile, which are not contained by walls, should be adhered to the existing floor using E-Grip III adhesive with a 1/8" square notched trowel indoors over substrate. Set tiles and ramps in the adhesive bed. Tiles being set in the adhesive bed should be doweled to the next inner course of tiles, but need not be doweled to each other. Ramps need not be doweled.
- C. For areas where adhering a ramp is not an option, you may edge adhere the side heel of the reducer to the side of the tile and/or drill dowel holes in the side heel of the reducer to match the existing dowel holes in the tile.
 - 1. When drilling dowel holes, the holes should be 1/4" in diameter and 1.75" deep.
 - 2. Adhesive should be allowed to cure for 24 hours before walking on the tile.
- D. Your 1" Weight Strength Rubber Gym Mat installation is now ready for use and will provide years of reliable, low maintenance performance. If you have questions about installation techniques or anything else regarding Weight Strength Rubber Gym Mats, call Greatmats toll free at 1-877-822-6622.

FULL GLUE DOWN INSTALLATION

I. FULLY ADHERED INSTALLATION

- A. Follow the site layout instructions to prepare the site area for installation. The tiles, accessories, and substrates must be acclimated and dry 24 hours before, during and after the application of adhesive.

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjust as necessary.

NOTE: Greatmat's Weight Strength Rubber Gym Mat is manufactured from recycled materials and slight variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.

NOTE: Coverage rates for the E-Grip III adhesive are approximately 60 square foot per gallon using a 1/8" square notch trowel. E-Grip III is available in 2 and 4-gallon pails.

- B. Using the appropriate trowel, apply the E-Grip III adhesive out slightly wider than the tile being placed. Do not spread more adhesive than can be covered in 30 minutes.
- C. Place tiles into the fresh adhesive bed following pre-established course lines. If applicable, place ramps into the fresh adhesive in a similar manner.
- D. After placing tiles into adhesive bed, roll the tiles with a 75 pound three section flooring roller to ensure adhesive transfer to the back of the tile feet.
- E. Adhesive should be allowed to cure for 24 hours before allowing foot traffic. All heavy traffic and/or light rolling loads should be avoided for a minimum of 48-72 hours after installation to allow adhesive to develop strength. In cases where 48-72 hours is not possible, it is recommended to cover the floor with a rigid covering such as 1/2" plywood sheeting with a fully sanded face against the surface of the tiles.

CUTTING TILES AND RAMPS

II. CUTTING 1" TILE AND RAMPS

- A. Avoid leaving a cut edge of a tile exposed to eyesight. To guarantee a finished appearance, any tile that has its factory molded, radius edge removed for any reason should be backed along that edge using a 1" masonry or timber edging, unless that edge is to be placed against a wall or other vertical member.
- B. The most accurate cuts in tiles are made using a heavy-duty utility or carpet knife and a straight edge. A saber saw utilizing a 7-10 TPI wood cutting blade also does an acceptable job, especially for radius or free-form cuts. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital setting will produce the best results. A cutting table used to support the work is required during cutting. A standard shipping pallet works well for infield use.
- C. Tile cuts are typically laid out by referencing dimensions from the edges of the tiles already in position to a wall or other obstruction along or around which the tiles are to fit. These dimensions are then transferred to and laid out on the tile to be cut.
- D. Layout lines are best made using a Sharpie® permanent marking pen, silver grease pencil, paint type marking pen, or carpenter's pencil.
- E. Ramps installed at corners should be miter cut to allow ramps to fit together properly.

III. PREPARATION FOR INSTALLATION OF ADA RAMPS

- A. Make sure that the subfloor is flat, clean, dry and free of contaminants such as waxes, finishes, sealers, or other extraneous materials that would prevent a good adhesive bond.
- B. Unpack the materials and allow them to sit in the area to be installed. Materials and adhesive must be acclimated at a uniform room temperature for a minimum of 48 hours prior to installation.

Note: The toe edge of the ramp contains a wire reinforcement material. Take care not to bend the edges as it will be difficult to get ramps with bent reinforcement to lay flat.

- C. When the Weight Strength Rubber Gym Mat installation is complete clean and prepare the remaining area for full adhesion of the ramps.

1" ADA RAMP INSTALLATION

IV. INSTALLATION – ADA RAMP

- A. Sweep area clear and/or shop vac all dust and loose debris.
- B. Dry lay ramps and make appropriate cuts before opening the adhesive.
- C. To cut the ramps, use a band saw or a saber saw with 7-10 TPI wood cutting blade. The saber saw should have a 3-3.5 amp rated motor and 1" stroke and variable orbital settings. A compound miter saw can also be used with a cross cut tooth blade. A small can of silicone spray can aid in the cutting and help cut down on smoke from the cutting however this must be cleaned from the product before applying the adhesive.
- D. Mark the areas where adhesive is to be applied and temporarily remove the ramps.
- E. Spread the recommended E-Grip III urethane adhesive using a 1/8" square notch trowel. Do not spread more adhesive than can be covered in 30 minutes.
- F. Carefully place the ramps into the adhesive. Be sure to press down firmly to assure proper adhesive transfer to the back side of the ramp or roll with a 75 pound three sectional flooring roller.
- G. Use weight to evenly hold down the toe edge of the ramps. The entire toe edge should be weighted, and the weight should be heavy enough to prevent the edge of the ramps from lifting out of the adhesive. Once the adhesive cures the ramp will not move.

Note: Adhesive spills must be removed while still wet. Use a dry rag to pick up the majority of the adhesive. Wipe the remaining residue with a rag dampened with mineral spirits. Cured adhesive can only be removed from surfaces by mechanical means, such as scraping or sanding.

- H. After 24 hours, remove the weight from the ramps.
- I. Clean and maintain the area in accordance with the instructions in the Maintenance Section below.
- J. Your 1" Weight Strength Rubber Gym Mat installation is now ready for use and will provide years of reliable, low maintenance performance. If you have questions about installation techniques or procedures, call Greatmats toll free at 1-877-822-6622.



MAINTENANCE

IMPORTANT INFORMATION FOR THE INSTALLER

Greatmats recommends environmentally friendly cleaner and maintenance products for Weight Strength Rubber Gym Mat

Proper protection and maintenance of 1" Weight Strength Rubber Gym Mat post-installation should be specified by the architect/designer. Weight Strength Rubber Gym Mat products are not pre-coated with a factory finish; therefore, they should not be subject to construction debris and potential damage caused from heavy-duty construction activities.

FLOOR PROTECTION

The specifier should include specification details to protect the floor post-installation and until job construction is complete, such as covering the entire floor with paper or other floor covering device (plastic, plywood, etc.) until construction is completed and thorough cleaning and maintenance can be implemented.

ASSIGNMENT OF CLEANING AND MAINTENANCE

The specifier should determine and assign the responsibility for the initial cleaning and finishing. This responsibility should be specifically assigned to either the flooring contractor, general contractor, maintenance contractor, or owner.

PRODUCTS AVAILABLE FOR PURCHASE

E-Cleaner
E-Strip

The recommendations contained in this manual are listed, because of their extensive testing and field experience with the product. These instructions are given only as guidance to our customers and for use with our recommended tools and adhesives. Greatmats cannot accept any responsibility for loss or damage that may result from the use of this information due to variations in working conditions and/or workmanship of the installer. Users are advised to conduct their own tests for a particular application and assign installers that are familiar with this type of flooring product.

Inspect all tiles for visual defects including shade variances prior to beginning installation. No labor claim will be honored on material installed with visual defects or shade variations. It may be necessary to lay out and hand select tiles for color consistency. Any discrepancies must be reported immediately before beginning the installation. Ensure that all job site and subfloor conditions are met.

MAINTENANCE continued

Steps	Cleaning Product	Mixture	Equipment
Initial Cleaning	E-Cleaner	10 oz./gal. water	Soft Nylon Brush or Red Pad
Daily Cleaning	E-Cleaner	2-4 oz./gal. water	Soft Nylon Brush, Red Pad or Microfiber Mop
Heavy Soil & Restorative Cleaning	E-Cleaner or E-Strip	16 oz./gal. water	Approved Pad*

* Please contact Greatmat's Customer Service Department for guidance on pad selection: 877-822-6622.

I. CLEANING PROCEDURES

1. Initial Cleaning
 - a. Remove all surface soil, debris, sand, and grit by sweeping, dust mopping, or vacuuming with a high CFM vacuum. For large areas, use auto scrubbers to clean floors.
 - b. Scrub floor with E-Cleaner (10 oz./gal. of water), using buffer or auto scrubber with a soft nylon brush or a red pad. Avoid flooding the floor.
 - c. Pick up solution with a wet vacuum. Rinse with clean water, picking up the rinse water with a wet vacuum and allowing it to dry thoroughly (6-8 hours).

2. Daily/Regular Cleaning
 - a. Sweep, dust mop, or vacuum floor to remove surface soil, debris, sand, and grit.
 - b. Damp mop with a microfiber mop or auto-scrub using a red pad with E-Cleaner diluted (2-4 oz./gal. of water).
 - c. Mop again with clean water to remove residue.

3. Restorative Maintenance
 - a. Sweep and dry vacuum floor thoroughly.
 - b. Heavy scrub floor with E-Cleaner (10 oz./gal. of water) or E-Strip. This cleaning may be performed with an auto scrubber or rotary scrubber.
 - c. Vacuum soiled solution with a wet/dry vacuum.
 - d. Rinse with clean water.
 - e. Pick up solution with wet vacuum. f. Allow floor to thoroughly dry.

4. Heavy Soil
 - a. Remove as much surface soil, debris, sand, and grit as possible by sweeping, dust mopping, or vacuuming.
 - b. Scrub floor with E-Cleaner or E-Strip, using a buffer or auto scrubber with an approved pad.
 - c. Pick up solution with a wet vacuum, rinse with clean water, and allow to dry thoroughly (6-8 hours).