BestGym Rubber Tile
Substrate Preparation

1. GENERAL PREPARATION AND CONDITIONING

- Read the literature concerning the product description, limitations, installation, adhesive information, maintenance and warranty prior to installation of tile.
- Inspect all material for proper type, color and matching lot numbers if appropriate.
- It is the Flooring Contractors responsibility to determine if the substrate is ready to receive BestGym resilient flooring; the following is a guideline to assist in the preparation of the substrate.
- Allow all trades to complete work prior to installation of any BestGym products.
- Deliver all materials to the installation location in its original packaging with labels intact. Remove any plastic stretch wrap and strapping from product after delivery to jobsite.
- Do not stack pallets of material to avoid any damage.
- Maintain the installation area, product and adhesive between 65º F (19º C) and 85º F (30º C) for at least 48 hours before installation, during installation, and after the installation.
- Remove material from cartons and stack evenly on a smooth dry surface no more than 18” high. Conduct the proper moisture emission and pH testing on the substrate. Proceed with the installation only when the conditions are proper and correct.
- Turn off radiant-heated flooring systems prior to installation and gradually increase the temperature 48 hours after installation.

2. SUBSTRATE PREPARATION

- Inspect all substrates prior to installation.
- All substrates must be clean, smooth, permanently dry, flat, and structurally sound.
- The substrate must be free of moisture, dust, sealers, paint, curing compounds, parting agents, residual adhesives, adhesive removers, hardeners, resinous compounds, solvents, wax, oil, grease, asphalt, gypsum compounds, alkaline salts, excessive carbonation or laitance, mold, mildew, any other extraneous coatings, films, materials and all other foreign matter which might interfere/restrict proper adhesive bonding.
- In renovation or remodel work, remove all existing adhesive residue so that 100% of the overall area of the original subfloor/substrate is exposed. Follow The Resilient Floor Covering Institute’s (RFCI) “Recommended Work Practice for Removal of Existing Floor Covering and Adhesive”, and all applicable industry, local, state, and federal standards.
- Greatmats does not recommend the use of chemical adhesive removers and this action voids the product warranty of the installed flooring over a slab in which a chemical adhesive remover was used.
- Care must be taken to analyze the conditions and correct any problems prior to installation. Follow the manufacturer’s recommendations for any patching or underlayment materials. Do not use gypsum based or plaster based levelers or patching compounds.

Concrete Substrates

- Moisture testing only provides a snapshot of the concrete conditions at the time of the testing. This value gives an indication of conditions for installation determines if adhesive will work properly. It is not indicative of future issues or problems and does not mean there will not be moisture problems in the future.
- Greatmats is not responsible for moisture issues at any time throughout the life of the installation. Concrete substrates on **all** Grade Levels must be tested in accordance with ASTM F 1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride or ASTM F 2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs using *in situ* Probes to quantitatively determine the amount of moisture vapor emission prior to installation.

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There are products on the market that make specific statements regarding moisture testing not being required when these products are used as an ad-mixture or topical treatment. Failure to preform moisture testing voids the adhesive and adhesion performance warranties of the BestGym product and Greatmats provided adhesives. Product defects not related to moisture issues will be covered under the warranty after cause of defect is determined by the manufacturer to not be moisture related.

- Follow ASTM Test Methods for conditions, methods and number of tests performed.
- If the substrate does not meet the requirements moisture content, do not install until the problem has been corrected.
- Do not install flooring if there is hydrostatic pressure.
- Every concrete floor slab on-grade or below grade to receive resilient flooring shall have a permanent, effective moisture vapor retarder installed below the slab.
- Perform pH testing for excessive alkalinity using a suitable method
- Perform porosity testing on the slab to determine if slab is porous or non-porous
- Do not install material over chemically contaminated concrete. Contaminants include chemical adhesive removers, asbestos abatement chemicals, oil spills, fuel spills, glycol spills and/or other similar chemicals

The manufacturer recommends using the MAPEI subfloor treatment system Planiprep SA and Planiprep ET to enclose these chemicals in the slab and protect the flooring installation. This two part system includes cleaning and profiling the surface with Planiprep SA, then applying the epoxy topping Planiprep ET. The substrate may then be leveled and the flooring installed.

- The concrete slab must be of good quality, standard density concrete with low water/cement ratios consistent with placing and finishing requirements, having a maximum slump of 4", a minimum compressive strength of 3500 PSI, and following the recommendations of ACI Standard 302.1R-96 for class 2 or the Portland Cement Association's recommendations for slabs on ground
- Moving joints such as expansion joints, contraction joints, isolation joints, saw cuts, control joints, grooves or other moving joints shall not be filled with patching compound, sealant or covered with resilient flooring, a properly designed expansion joint cover should be used.
- Any non-moving surface cracks, depressions, and other irregularities shall be filled and smoothed with a high quality grade Portland cement-based, water resistant, non-shrinking, non-staining, mildew resistant, alkali resistant underlayment having a minimum compressive strength of 3500 PSI after 28 days.
- Product warranty does not include damage or telegraphing caused my moving joints or attempted filling of moving joints.
- Mechanically cleaning the substrate by shot-blasting, scarifying and/or sanding shall be performed to achieve a flat, smooth, clean surface to prevent irregularities, roughness or other defects from telegraphing through the new resilient flooring.
- The surface of the concrete shall be flat to within the equivalent of 3/16" in 10 feet, as described in ACI 117R.
- The surface shall be cleaned of all loose material by scraping, brushing, vacuuming and/or other methods immediately before commencing installation of resilient flooring.
- Follow the proper safety practices during the preparation and installation. Follow the recommendations of the American Concrete Institute (ACI 302.1R, *Guide for Concrete Floor and Slab Construction;* ACI
- 360.R, *Design of Slabs on Grade;* ACI 223*, Standard Practice for the Use of Shrinkage-Compensating Concrete);* The American Society for Testing and Materials (ASTM F 710, *Standard Practice for Preparing Concrete Floors and Other Monolithic Floors to Receive Resilient Flooring*), and the American National Standards Institute (ANSI A157.1, *Recommended Practice for Concrete Floor and Slab Construction*) for the preparation of concrete to receive resilient flooring.

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Wood Substrates

- Wood subfloors should be of double layer construction with a minimum thickness of 1”.
- Crawl spaces underneath wood subfloors shall be in compliance with local building code ventilation practices and have clearance of at least 18” of cross-ventilated space between the ground level and joists.
- Wood joists should be spaced on not more than 16” centers.
- Place a moisture retarder; having a maximum rating of 1.0 perm, on the top of the ground under the wood subfloor overlapped at least 8”.
- Use APA approved Underlayment Grade plywood, minimum 3/8” thick, with a fully sanded face.
- Use APA approved exterior grade plywood if finished floors are subjected to moisture.
- OSB, luan, meranti, solid-core mahogany, waferboard, particleboard, chipboard, flakeboard, tempered hardboard, un-tempered hardboard, glass mesh mortar units or cementitious tile backer boards, sheathing-grade plywood, preservative-treated plywood and/or fire-retardant treated plywood are not recommended as some manufacturers may use resins or other adhesives in the manufacturing of the product that may cause discoloration or staining of the flooring or difficult adhesion.
- Wood subfloor movement, flexing or instability will cause the flooring installed to release, buckle or become distorted.
- Do not proceed with the installation until corrective measures have been made. The warranties, performance, installation and uses are the responsibility of the wood subfloor manufacturer and/or contractor.
- Do not use plastic or resin filler to patch cracks.
- Do not use cement or rosin coated nails/staples, or solvent-based construction adhesive to adhere the plywood.
- Do not install over a sleeper or wood subfloor system constructed over the top of concrete. Installation directly over Sturd-I-Floor panels is not recommended.
- All wood substrates, single construction plywood floors, single and/or double tongue-and-groove strip floors, and wood plank floors must be prepared to receive resilient flooring in accordance with federal and industry standards.
- Follow the recommendations of the APA, The Engineered Wood Association, Design/Construction Guide, Residential and Commercial, and ASTM F 1482, Standard Guide to Wood Underlayment Products Available for Use under Resilient Flooring.

Terrazzo and Ceramic Floor Substrates

- Terrazzo and ceramic floors to be used as substrates are to follow the procedures recommended for concrete.
- Tiles must be solidly adhered and all loose tiles must be removed and repaired or replaced.
- Ensure all glazed, sealed, smooth and/or shiny surfaces are properly sanded and cleaned.
- Fill all grout lines and other irregularities with a Portland cement-based underlayment with a minimum compressive strength of 3500 PSI.
- The subfloor must be structurally sound, inspect and ensure there is an adequate bond of the old flooring to the original substrate.
- The manfacturer will not warrant the product if there is a bond failure caused by problems relating to the old flooring.
- Use an adhesive designed for non-porous substrates.

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Metal Floor Substrates

- Metal floors to be used as substrates must be thoroughly cleaned of any residue, oil, rust and/or oxidation and properly sanded/ground to provide a smooth, level, clean substrate to receive the resilient flooring.
- The flooring must be installed within 12 hours after sanding/grinding to prevent the metal flooring from re-oxidizing.
- The metal subfloor shall be structurally sound.
- Deflection of the metal floor can cause a bond failure between the adhesive and the metal substrate.
- On an extremely smooth metal substrate, a longer “tack up” time may be required in order to prevent the adhesive from oozing between the seams.
- Use an adhesive designed for non-porous substrates.

Existing Flooring Substrates

- The manufacturer does not recommend installing new floor covering over exiting flooring materials such as VCT or Rubber.
- We are aware that there are occasions where this may be necessary and it is the responsibility of the installing contractor to determine bonding characteristics to the existing flooring.
- The manufacturer will provide warranty of bonding a portland-based cement underlayment product.
- We advise contacting provider of a portland-based cement underlayment for proper bonding to existing flooring.

3. PRODUCT INSTALLATION

Install all materials according to the installation instructions for the specific product you are installing only after verification of the substrate and it is found in a suitable condition for installation.

Greatmats.com
117 Industrial Ave
Milltown, WI 54858
877-822-6622
Fax: 715-825-4928
info@greatmats.com
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