



Installation Guidelines For Fitness Tiles



This product has been certified by SCS to meet the rigorous indoor air quality requirements of the FloorScore® certification program.

The following pages are guidelines, if not followed, warranty will be voided. Please read this manual thoroughly before installing Rubber King Commercial products.

Toll Free Tel: 855-663-1520

Website: www.rubberking.com

TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
General Information	3
MATERIAL STORAGE & HANDLING	
General Packaging Info	3
Receipt of Merchandise	3
Storage	4
TOOLS & ACCESSORIES	
Tools and Safety Equipment Required	4
Interlocking Tubes	4
Wedges & Corner Pieces	4-5
Ramps	5
Adhesive	5
SUB-SURFACE	
Preparation of Sub-surface	6
Concrete	6
Wood	6
Hazards	7
PREINSTALLATION	
General Information	7
Chalk Lines	7
Tile Layout	8
Acclimation – Dry Lay Process	8
Cutting	8-9
INSTALLATION	
General Installation Information	9
Interlocking Tile-No Adhesive Required	9-10
Glue Down Installation	10
Clean Up Adhesive	10
CLEANING	
Post Installation Cleaning	10

SECTION I – GENERAL INFORMATION

- This installation method and tile format is a must for all areas in extreme temperature and humidity change, or where surface moisture may be present after installation, i.e. ice arenas, locker rooms and entry ways.
- Product Information:
 - Thickness tolerance of $\pm 2\text{mm}$ (5/64")
 - Dimensions: 24" x 24" = 4 ft² (60.96cm x 60.96cm = 0.37m²)
 - Thicknesses:
 - 1" (25mm)
 - 1 1/2" (38mm)
 - 2 3/4" (69.85mm)

SECTION II – MATERIAL STORAGE & HANDLING

General Information:

- All Rubber King Commercial products are packaged on wooden pallets, covered with a plastic cozy, and secured by metal strapping. (image below does not include metal strapping)



Receipt of Merchandise:

- It is recommended you double-check your order is correct.
- Inspect for any damage that may have occurred during transportation.
- Identify any other possible shortcomings.
- For your own protection, ensure that defective product is identified prior to the start of the installation.
 - Notify your sales rep regarding any defective product immediately.
- Rubber King Commercial is not responsible for any installation costs that occur because of defective product being installed.
- If adhesives were exposed to freezing temperatures, place indoors and bring to room temperature between 14°C (57°F) and 23°C (72°F) before using.
- Read technical data sheet and SDS for adhesive.

Storage

- Store product in a dry and clean area.
- Before placing any Rubber King Commercial product in storage remove the pallet strapping.
- Leave plastic cozy on during storage.
- Adhesive must be stored above 18°C (65°F) in a dry heated space.

SECTION III – TOOLS & ACCESSORIES

Tools and Safety Equipment

- Rubber King Commercial Installation Guidelines
- Safety glasses
- Solvent safe rubber gloves
- Knee pads
- Broom and dustpan
- Heavy duty utility knife
- Jigsaw, reciprocating saw, or bandsaw
 - Suggested blade is 12-14 teeth per inch or a rubber cutting blade.
- Mallet
- Measuring tape
- Transit level and straight edge
- Caulking Gun
- Chalk snap-line
- White Chalk sharpened to wedge for marking cuts
- 1/16" x 1/16" x 1/16" V- Notch Trowel – if adhesive is required
- Carpenter's square
- Putty knife
- Transition wedges and corners if required
- Carpenter's square
- Interlocking tubes and pins (additional cost)

Interlocking Tubes and Pins:

- The interlocking tubes and pins are made from black polyethylene.
- Each tile requires four (4) interlocking tubes or pins.
 - Interlocking tubes should be installed in the same direction as the longest part of the installation area.
- Each tile thickness requires a different size tube or pin. See below for appropriate interlocking tube or pin
 - 1" tile
 - 1 ½" & 2 ¾"



1 ½" & 2 ¾"



Wedges & Corner Pieces

- Wedges are used around the perimeter of an area to create a transition.
- They can be adhered to the edge of the rubber tile and/or glued to the sub-surface.
- Corner pieces compliment the wedges.
 - There are the inside and outside wedge corners designed for use on all 90° angles.



Corner pieces are not available in 1"

Ramps:

- Ramps are required when installation areas must meet ADA Compliance for wheelchair accessibility.



Adhesive:

- Varying temperature ranges will affect curing times, viscosity and pot life of adhesive, possibly resulting in adhesion problems.
- Use safety glasses, rubber boots, and rubber gloves when applying adhesive. Do not allow adhesive to cure on your hands.
- Room must be well ventilated.
- For first aid and safety instructions see labels on can and the safety data sheet.
- If adhesives other than the products listed below are being used, this could void the warranty. Contact Rubber King Commercial for verification.
- For detailed information and product use, refer to Technical Product Data Sheet, included and adhesive.

Mapei Eco 980

- Single component polyurethane adhesive
- 4-Gal Polyurethane Adhesive
- Approximate coverage:
 - 1/16" V-notched trowel - 400 sq ft
- 12-month shelf life
- It is not uncommon for a moisture cure urethane product to develop a slight skin on the top surface in the can.
- The product is still good; simply remove the skin and mix adhesive well.
- Refer to batch number on adhesive and contact Rubber King Commercial to determine if it has expired.
- Rubber King Commercial is not responsible for adhesive used past its expiration date.

SECTION IV – SUB-SURFACE

Preparation of Sub-surface:

- Rubber King Commercial Fitness Tiles should not be installed on top of carpet.
- The sub-surface must be flat/smooth, clean and dry, structurally sound and all debris including old adhesive must be removed.
 - Scraping may be required to remove debris.
 - Debris left under tiles will cause height variations, telegraphing and undulations.
- Particleboard, chipboard, Masonite and Lauan Plywood are not considered suitable underlayment.
- If the sub-surface has been previously sealed or finished the surface may need to be stripped and cleaned to ensure an adequate bond.
- Petroleum distillates (e.g. solvents) as well as liquid animal fats may cause the surface bonding to fail. Test results for other harmful chemicals and compounds may be available on request.
- Contact Rubber King Commercial for verification.

Concrete Sub-Surface

- New concrete sub-surfaces must be thoroughly cured and free from hydrostatic pressure before rubber tiles are installed (a minimum of 30 days after pour).
- Consult adhesive specifications for allowable moisture tolerance.
- Concrete substrates should not exceed 90% RH and/or 5lbs x 24-hours x 1000 sq. ft.
- It is essential that pH tests be taken on all concrete floors. This must range between 7 and 9. If it does not, the sub-floor must be neutralized prior to the beginning of the installation.
These tests must be documented.
- Moisture vapor emissions test in accordance to ASTM F1869 and relative humidity in concrete test in accordance to ASTM F2170 must be completed.
- Sub-surface must be smooth and level to a tolerance not exceeding 1/8" in 10 lineal feet.
 - The Concrete Surface Profile (CSP) must achieve a requirement of CSP2.
- If existing concrete is too rough, or does not meet the above criteria, apply a Portland cement based leveling compound to smooth and level the surface. Follow all leveling compound manufacturer's instructions.
- Moisture is the single most significant factor that causes bonding failure to the sub-surface.
- Warranty is not applicable if specified moisture ranges are not adhered to.

Wood Sub-surface:

- Wood sub-surface must be a minimum of 1" thickness, and free from any flex movement. (5/8" on joists with a 3/8" overlay is acceptable).
- New plywood should be acclimatized for a 48-hour period prior to installation of the rubber flooring.
- CDX exterior smooth one side is suggested for new wood substrates.
- Secure all nails and screws to prevent future protrusion.
- Any cracks, holes, rough or uneven areas should be patched with a polymer-modified cement leveling compound and/or sanded to achieve a smooth surface.
- It is vital that a moisture test be completed prior to installation with records kept. No less than 20 spot checks per 1000 sq. ft. should be observed. Any readings higher than 13% are not acceptable and installation must wait until levels are at or under 13%.
- Moisture is the single most significant factor that causes bonding failure to the sub-surface.
- Warranty is not applicable if specified moisture ranges are not adhered to.

Hazards

- Silica Warning: Concrete, floor patching compounds, toppings, and leveling compounds can contain free crystalline silica. Cutting, sawing, grinding, or drilling can produce respirable crystalline silica (particles 1- 10 micrometers). Classified by OSHA as an IA carcinogen, respirable silica is known to cause silicosis and other respiratory diseases. Avoid actions that may cause dust to become airborne. Use local or general ventilation or provide protective equipment to reduce exposure to below the applicable exposure limits.
- Asbestos Warning: Resilient flooring, backing, lining felt, paint, or asphaltic “cutback” adhesives can contain asbestos fibers. Avoid actions that cause dust to become airborne. Do not sand, dry sweep, dry scrape, drill, saw, bead blast, or mechanically chip or pulverize. Regulations may require that the material be tested to determine the asbestos content. Consult the document “Recommended Work Practices for Removal of Existing Resilient Floor Coverings” available from the Resilient Floor Covering Institute.
- Lead Warning: Certain paints can contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state, and local laws and the publication “Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing” available from the United States Department of Housing and Urban Development.

SECTION V – PRE-INSTALLATION

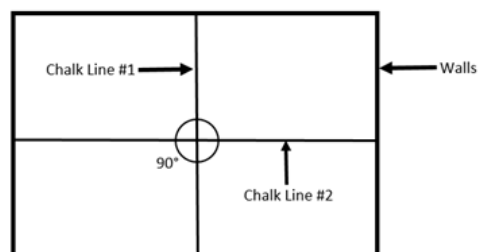
General Information

- Prior to installing Rubber King Commercial products, ensure all other trades have completed their work schedules.
- The use of Masonite board, plywood or kraft paper should be used to protect the rubber flooring from damage and debris.
- Product, sub-floor and adhesive must be of the same temperature. This should be checked using an infrared digital thermometer.
- Rubber King Commercial is not responsible for any product failure if proper floor preparation and/or installation procedures are not followed.
- Check ambient temperature.
- All HVAC systems must be fully operational 24-hours prior to beginning the acclimation process.
- Rubber flooring may be installed between temperatures of 14°C (57°F) and 23°C (72°F).
 - Room temperature must be consistent during the entire installation.
 - Large fluctuations in temperature or humidity will cause expansion or contraction.
- In-floor radiant heat should be shut off for 24-hours prior to acclimation, be shut off throughout installation and remain off for 48-hours after installation is complete.

Chalk Lines

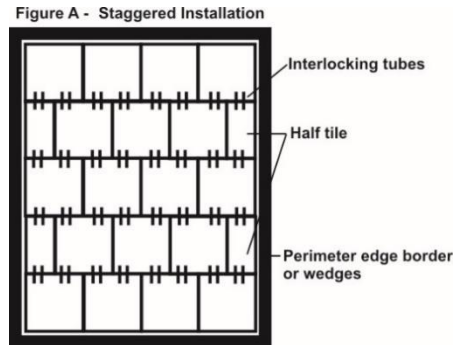
- Locate the midpoint of the room, chalk a start line down the center. Chalk another similar start line 90° to the first one. (Figure 1)

Figure 1



Tile Layout

- The installer should have all relevant information about the tile arrangement from the owner.
- Begin tile layout from the point where the two chalk lines intersect.
- Work outwards in both directions
- Start second row on either side of the center line towards the chalk line.
- Make sure that second row is installed by staggering tiles.



Acclimation and Dry Lay

- **Acclimation/Dry Lay Checklist is required to be completed or warranty will be void.**
- A minimum of 48-72 hours before starting installation.
 - Storage longer than 2 weeks will require a longer acclimation period.
 - Tiles in the lower portion of the stack will compress to a greater degree than those in the upper portion.
 - A tile laid down in the morning hours at 0°C (32°F) would be a different size than a tile laid at 20°C (68°F) later in the day.
 - Acclimation should only begin once the sub-surface has reached a temperature between 14°C (57°F) and 23°C (72°F).
- Layout all tiles on the sub-surface in piles of 2 or less:
 - Be sure to mix tiles from several different pallets to blend minor shade variations.
 - Allow them to acclimate until they have reached a consistent size
 - Some products under certain conditions have shown expansion and contraction in size of up to 2mm (5/64")
 - Check for any shading or uneven color distribution:
 - This is not considered to be a product defect.
 - Install the tile in a less visible area may help improve the effect.
 - Inspect all tiles for visible defects.
 - Ensure the defective product is identified prior to the start of the installation, notify Rep/Dealer immediately.
 - Labor will not be covered if any defective product is installed.

Cutting

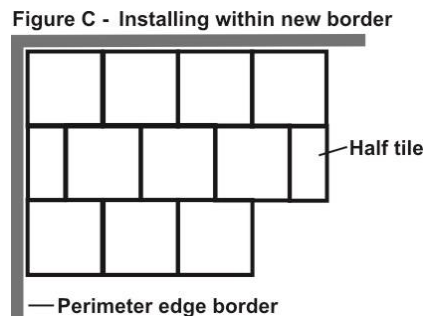
- Before cutting, ensure that each tile is measured carefully so that the tile will fit properly.
- Lay tiles on a flat surface, hold the metal straight edge on the cut line, and cut with sharp utility knife.
- Keep scoring the cut until separated.
- Change or snap off blades frequently to ensure clean cuts.
- For odd angles, circular patterns, etc. a cardboard template is suggested.
- Join factory edges together. Hand cut edges should be used against perimeter walls only.

- If a large amount of cutting is required, a jigsaw or reciprocating saw could be used.
- Depending on thickness and length of cut, inserting a wedge into start of cut will help minimize any binding on the blade.
 - Inserting a small wedge into start of cut will help to minimize any binding on the blade.

SECTION VI – INSTALLATION

General Information:

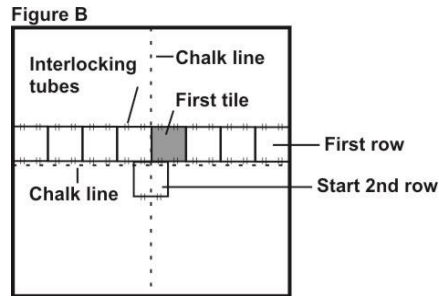
- **Do not install** the tiles if they are not square and the appropriate thickness has not been reached.
- If installing a new perimeter edge border, it is best if only two edges (L shape) are installed. This will reduce the movement of tiles when inserting the interlocking tubes.



- Once installation is complete, install the last two remaining perimeter borders, make sure they are as tight as possible against the tiles.

Interlocking Tiles (No Adhesive Required):

- Installing along a straight edge:
 - Place first tile at designated starting point, either against a wall or existing border. Align first row of tiles along a straight edge.
 - Make sure that all interlocking holes are facing toward unfinished area. (Do not put any interlocking tubes in first row of tiles.)
 - Interlocking tubes should be installed in the same direction as the longest part of the installation area.
 - Start second row with a half tile, which is simply a full tile cut in half.
 - As you are installing each tile, tilt slightly to ease pegs into existing tile.
 - Tap with mallet ensure tight fit.
 - Continue installation in staggered method. Repeat first and second row until installation is complete.
- Installing Irregular Site Configurations:
 - Use the chalk lines (Section V) as a reference as a guide for laying the first row of tiles.
 - Place the first tile where the two chalk lines intersect.
 - Work outwards in both directions.
 - Start second row on either side of the center line towards the chalk line.
 - Be sure to stagger the second row.
 - Refer to Section V for cutting irregular shapes.



Glue Down Installation:

- Installing Along Straight Edge:
 - Glue the first row of tiles along straight edge.
 - Start second row with a half tile, which is simply a full tile cut in half.
 - Continue installation in a staggered method.
 - Repeat first and second row installation until installation is complete.
- Installing Irregular Site Configurations:
 - Use the chalk lines (Section V) as a reference as a guide for laying the first row of tiles.
 - Place the first tile where the two chalk lines intersect.
 - Work outwards in both directions.
 - Start second row on either side of the center line towards the chalk line.
 - Be sure to stagger the second row.
 - Refer to Section V for cutting irregular shapes.

Clean-up Adhesive:

- Do not get adhesive on the top surface of the tiles as it is impossible to remove when cured.
 - Immediately use a clean damp cloth to remove any adhesive.
- Rubber King Commercial does not warranty product where the attempt to remove adhesive has been made. Any damage to the tile because of adhesive removal is solely that responsibility of the installer.
- Contact your Rep/Dealer immediately for suggested cleaning methods if this happens.
- Caution: the use of mineral spirits can cause the area to appear darker.
- Intense scrubbing of the seams will also darken the edges.

SECTION VIII – POST INSTALLATION CLEANING

- Tiles are coated with a water-based mold release residue, a natural result of the manufacturing process. This will initially cause slight discoloration and slipperiness.
- Remove all surface soil and debris by sweeping, mopping, or vacuuming.
- Apply a solution of neutral cleaner and agitate with a brush or mop, rinse with clean water.
 - Use as little water as possible.

Disclaimer:

The installation guidelines in this manual represent typical installation work procedures. Every site is different, and Rubber King Commercial does not claim to have covered all possible circumstances.

Rubber King Commercial does not warrant installation work and specifically disclaims liability for any direct or indirect personal injury, property damage, and other costs or losses resulting from

installations or applications by third parties. Please, see Rubber King Commercial's Limited Warranty for the particulars of warranty coverage relating to Rubber King Commercial products.

Rubber King Commercial
Website:www.rubberking.com

Tol Free: 1-855-663-1520
E-mail: commercial@rubberking.com