

Installation Guidelines

For



Summit International Flooring
Unique and Luxury Flooring

Indoor Rubber Flooring Square Cut Glue Down

TRIATHLON 800 SERIES
KALEIDOSCOPE
MARATHON
RUBBERAZZO
OPULENCE



SCS-FS-04374

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 Summit International Flooring products.

Tel: (973)-301-0800

Fax: (973)-301-0802

Toll Free Tel: (877)-496-3566

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SECTION I – GENERAL INFORMATION

- This installation method and mat 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: +/- 0.5mm
 - Dimensions: 38" x 38" = 10.02 ft² (96.5cm x 96.5cm)
 - Dimension Stability: +/- 2mm

SECTION II – MATERIAL STORAGE & HANDLING

General Information:

- All Summit International Flooring products are packaged on wooden pallets, covered with a plastic cozy, and secured by metal strapping. **(The image below does not include metal strapping).**



Receipt of Merchandise:

- It is recommended you double-check your order is correct.
- Inspect for 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.
- Summit International Flooring is not responsible for any installation costs that occur because of a 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

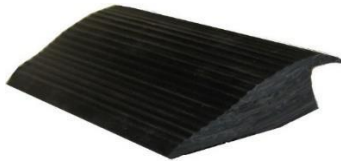
- Store product in a dry and clean area. **DO NOT store in direct sunlight.**
- Before placing any Summit International Flooring product in storage, **remove the metal strapping from the pallet.**
- Leave plastic cozy on during storage.
- Adhesive must be stored above 18°C (65°F) in a dry heated space.

SECTION III – TOOLS & ACCESSORIES

Tools and Safety Equipment

- Summit International Flooring Installation Guidelines
- A two-person installation is required for large areas (one to handle materials and one to handle adhesive).
- Safety glasses
- Rubber gloves and boots
- Heavy duty utility knife
- Measuring tape
- Transit level and straight edge
- Chalk snap-line
- 1/16" x 1/16" x 1/16" V- Notch Trowel
- Carpenter's square
- Putty knife
- Masonite board, plywood or kraft paper
- 858ml adhesive caulking gun, if needed to adhere reducer strip
- 50lb or 70lb roller depending on thickness

Reducer Strips:



Sizes:

- 5/16" (8mm) x 12' length
- 3/8" (10mm) x 12' length
- 1/2" (12mm) x 12' length
- 3/4" (20mm) x 12' length

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 the can and the safety data sheet.
- If adhesives other than the products listed below are being used, this could void the warranty. Contact Summit International Flooring for verification.
- For detailed information and product use, refer to the Technical Product Data Sheet, included and adhesive.

Mapei Eco 980

- Single component polyurethane adhesive
- 4 US gallons: 57lbs (25.8kg)
- Approximate coverage: 400ft² (37.16m²)
- 1/16" V-notched trowel
- 12-month shelf life

Chemrex Urethane 948 (V.O.C. compliant)

- Single component polyurethane adhesive
- 858ml gun grade: (29oz tube)
- Approximate coverage:
 - 1/8" (3mm) bead = 345 lineal feet
 - 3/16" (5mm) bead = 153 lineal feet
 - 1/4" (6mm) bead = 86 lineal feet
 - 5/16" (8mm) bead = 55 lineal feet
 - 3/8" (10mm) bead = 40 lineal feet
- 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 Summit International Flooring to determine if it has expired.
- Summit International Flooring is not responsible for adhesives used past its expiration date.

SECTION IV –SUB-SURFACE

Preparation of the Sub-surface

- 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.
- Expansion joints in the concrete are designed to allow for expansion and contraction of the concrete. If a floor covering is installed over an expansion joint, it will likely fail in that area. Use expansion joint covers designed for resilient flooring.
- Particleboard, chipboard, Masonite, and Lauan Plywood are not considered suitable underlayment.
- If installing on an incline surface, start at the bottom and move up the surface to avoid sliding of the mats.
- Debris left under mats will cause height variations, telegraphing and undulations.
- 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 Summit International Flooring for verification.

Concrete Sub-Surface

- New concrete sub-floors must be thoroughly cured and free from hydrostatic pressure (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 with 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.
- The 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.
- The 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

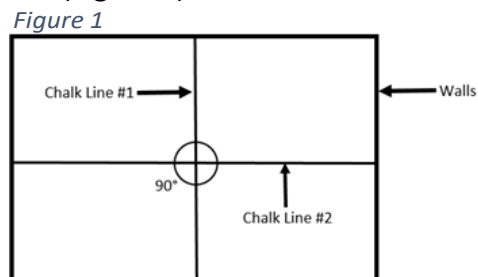
General Information

- Prior to installing Summit International Flooring 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.
- Summit International Flooring is not responsible for any product failure if proper floor preparation and/or installation procedures are not followed.
- Check the 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 (72-hours prior to installation), be shut off throughout installation and remain off for 72-hours after installation is complete.
 - It is recommended that surface temperature does not exceed 25°C (77°F)
- **Please Note:** Light colored EPDM is susceptible to Ultraviolet degradation. Caution should be used when installing near windows in direct sunlight. Warranty is void if installed in these circumstances.

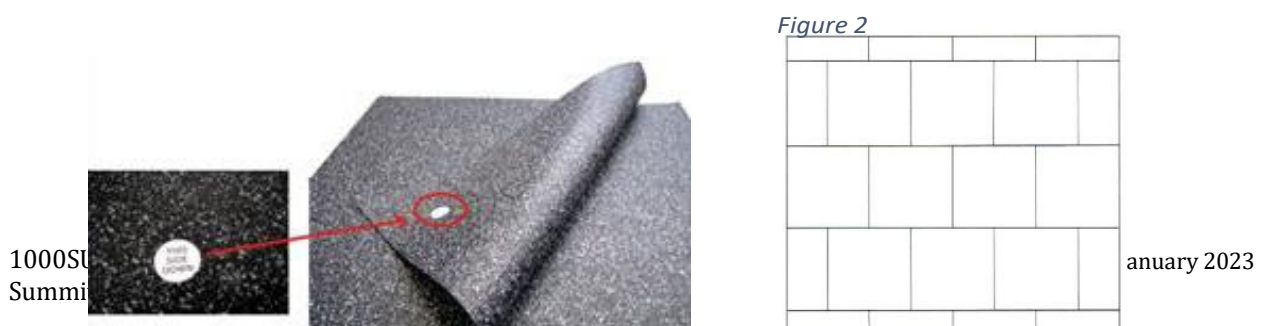
Chalk Lines

- 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)



Mat Layout

- Each mat is marked with a label stating:
 - **This Side Down**, do not remove these labels until final glue down commences.
 - Make sure that all mats are laid down with the “label” pointing in the same direction. (i.e. Bottom right corner)
 - Install mats same side up as received, **Do Not Flip Over** (i.e. sticker bottom right)
- The installer should have all relevant information about the mat arrangement from the owner.
- Begin mat 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 the second row is installed by staggering mats.
 - This will avoid any four corners from meeting at one spot. (See figure 2)



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 the installation.
 - Storage longer than 2 weeks will require a longer acclimation period.
 - Mats in the lower portion of the stack will compress to a greater degree than those in the upper portion.
 - A mat laid down in the morning hours at 0°C (32°F) would be a different size than a mat 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).
- Lay out all mats on the sub-surface in piles of 2 or less:
 - Be sure to mix mats 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 1/8" (3.2mm).
 - Check for any shading or uneven color distribution.
 - This is not considered to be a product defect.
 - Rotating the mat 90° or installing it in a less visible area may help improve the effect.
 - Inspect all mats 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.
 - Scythe marks are inherent in the manufacturing of recycled rubber flooring products and are considered normal.
 - Certain lighting conditions can accentuate these marks and as such is not considered a product defect.
- In the event of curled edges due to prolonged storage, back rolling the mats may be necessary to break the memory of the bonding agent.
- If curled edges are present, you may be required to tape the edges together with low tack painter's tape and weight the edges down until the adhesive cures.
- If delamination occurs on the edge of the laminated mats, this can be repaired on site with Gorilla Glue.

Cutting

- Lay mat 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 the perimeter walls only.

VI – INSTALLATION

General Installation Information

- **Do not install** the mats if they are not square and the appropriate thickness has not been reached.
- Intended for indoor use only and should not be installed in areas where the temperature is

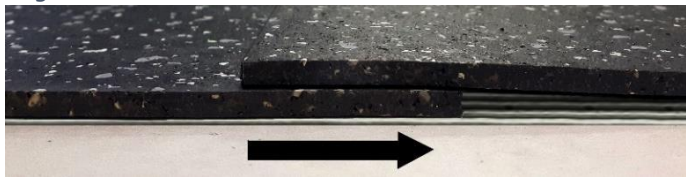
inconsistent.

- Glue down installation is required for all square edge mats.
- Refer to adhesive label for working time.
- Ensure to work in small areas, 2-3 mats at a time so the adhesive does not set or skin over before laying the mat.
- Avoid uneven spreading or the use of a larger trowel. Excess adhesive can result in adhesive coming up between the seams.
- Remove excess adhesive from the sub-floor within 10 minutes with a putty knife so it does not cure. Cured adhesive on an adjacent row will cause height variations.
- Tape is not required; certain tapes will leave residue and cannot be removed from the top surface without possible damage.
 - Low tack painters' tape can however be used but needs to be removed immediately after installation.
- Attach reducer strip to mats with Chemrex adhesive or caulking if needed.

Mat Installation

- Put the mat that you are installing on top of the mat already glued down and pull towards the area you want to fill until the mat falls into place, then firmly press the mat up to edge of the existing mat.
 - Over compressed seams will cause peaking, care should be taken when compressing seams.
- This will keep excess adhesive from protruding between the seams. (See figure 3)

Figure 3



- Leave ¼" gap to all walls for mat expansion.
 - Allow 72-hours setting time before post install cleaning.
 - Avoid heavy traffic or rolling loads during curing to prevent indentation or movement of mats.
 - Never leave adhesive ridges or puddles. They will telegraph through the material.
- If peaking occurs due to inadequate acclimation, seams may need to be weighed down to ensure they stay flat during installation.

Clean Up Adhesive

- Do not get adhesive on the top surface of the rubber flooring as it is impossible to remove when cured.
 - Immediately use a clean damp cloth to remove any adhesive.
- Summit International Flooring does not warranty products where an attempt to remove adhesive has been made. Any damage to the mat because of adhesive removal is solely that responsibility of the installer.
- Contact your Summit International Flooring supplier 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.

General Logo Information

- All logos are assembled at the factory prior to being shipped to ensure a precise fit has been achieved.
- Logos do not ship assembled.
- Logo pieces are labelled and supplied with reference graphics for installation.
- Use care when handling logo pieces to protect them from damage or loss.
- Logos are packaged depending on size:
 - One mat logos are usually packaged in a separate box.
 - Larger logos are packaged on top of the pallet.
 - Smaller pieces are always packaged separately in either a plastic bag or small box.

Logo Installation

- Before starting the logo installation, confirm the required logo location from site drawings or by confirming with the building owner.
- Acclimate and dry lay as per guidelines previously mentioned above.
- While Acclimating and dry laying tape all logo piece in place. (Low tack painters' tape may be used to hold pieces in place during this step, but tape must be removed immediately after logo is installed).
- Carefully remove logo and place to the side.
- Spread adhesive in area of logo placement as per the logo layout as directed above.
- Be extremely careful not to use too much adhesive, as it could seep through the small piece seams onto surface of the logo mat. Do not get adhesive on the top side of any logo pieces.
- If adhesive does get on the top side of the logo immediately wipe with a clean damp cloth.
- Carefully place background mat and logo pieces into place, starting with larger pieces.
- Gently adjust pieces to ensure a good fit.
- Continue to install surrounding floor, being careful to protect logo from all traffic.
- Cover with Masonite board, plywood or kraft paper until the remainder of the installation is complete.

Rolling

- Roll each row as completed or within 15 - 20 minutes. Also roll the entire area at the end of each day
- Work in all directions. North to South and East to West.
 - Do not twist or pivot the roller or your feet as it will stretch the mats, roll in a long straight line.
 - Adhesive is slippery when first spread and mats can shift position even if only slightly.
 - Too much rolling or too heavy of a roller could cause the mats to buckle and adhesive to move upwards through the seams.
 - Furthermore, stretching of the rubber flooring can eventually lead to gaps between the mats.
 - Roll slowly, rolling too quickly could affect the bond of the adhesive.
 - Do not roll right along the edge of mat, always try to overlap on the seams.
- No foot traffic of any kind should be allowed for the 48-hours, allow 72-hours for maximum strength.
- When rolling a logo, place a piece of Masonite board or plywood overtop to stop small pieces from moving.

- Roller Guideline:
 - 5/32"-1/4" (4mm-7mm) mat thickness – use 50lb roller
 - Thicker than 5/16" (8mm) mat thickness – use 70lb roller

VII – CLEANING

Post Installation Cleaning

- When installation is complete, and adhesive is fully cured (at least 72-hours).
 - Sweep the floor to remove any debris, then dust mop thoroughly to remove all surface dust and dirt using a dust mop or microfiber mop.
 - Use a neutral PH cleaner (see dilution rates on label).
 - Do not use any oil base cleaners as they will deteriorate the mats.
 - Damp mop with a neutral PH cleaner diluted with warm water; use a microfiber mop.
 - Use a two-bucket system and change the water frequently.
 - If the floor has an excessive amount of dirt or dust present, additional cleaning with a lightweight auto scrubber may be required.
 - An RPM of 185 and brush pressure between 35lbs and 85lbs are recommended.
 - If disc type equipment is used, be sure to use a soft nylon brush, not a pad.
 - Do not flood the floor.
 - Allow the floor to dry thoroughly.
 - Apply a treatment of an acrylic polymer floor coating according to instructions provided on the label if desired.

VIII - FLOOR TREATMENT

Recycled Rubber Treatment

- For most installations, it is not necessary to seal or coat Summit International Flooring products.
 - Contact your Summit International Flooring supplier for the correct choice in your application
- An acrylic polymer floor coating is recommended to improve the visual effects of shade variation and uneven distribution of color granules.
 - See label for installation instructions.

Disclaimer:

The installation guidelines in this manual represent typical installation work procedures. Every site is different and Summit International Flooring does not claim to have covered all possible circumstances.

Summit International Flooring does not warrant installation work and specifically 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 Summit International Flooring Limited Warranty for the particulars of warranty coverage relating to Summit International Flooring products.

One Apollo Drive
Whippany, NJ 07981
<http://www.summit-flooring.com>

Toll Free: 1-877-496-3566
Fax: (973) 301-0802
E-mail: info@summit-flooring.com