



Summit International Flooring



INDOOR RUBBER FLOORING INSTALLATION & MAINTENANCE MANUAL

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INSTALLATION

I. JOB SITE CONDITIONS

1. Installation should not begin until after all other trades are finished in the area. If the job requires other trades to work in the area after the installation of the floor, the floor should be protected with an appropriate cover. Kraft paper or plastic works well.
2. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during, and after the installation.

II. SUBFLOORS

Summit International Flooring recycled rubber flooring; Muscle, may be installed over concrete, approved Portland-based patching and leveling materials, such as Ardex K-15 or equivalent, and wood.

NOTE: Ardex Engineered Cements
400 Ardex Park Drive
Aliquippa, PA 15001
(724) 203-5000

NOTE: Gypsum-based patching and leveling compounds are not acceptable.

1. Wood Subfloors – Wood subfloors should be double construction with a minimum thickness of one inch. The floor must be rigid and free from movement with a minimum of 18 inches of well-ventilated air space below.
2. Underlayments – The preferred underlayment panel is American Plywood Association (APA) underlayment grade plywood, minimum thickness of 1/4-inch, with a fully sanded face.

NOTE: Particleboard, chipboard, Masonite and lauan are not considered to be suitable underlayments.

3. Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concrete slabs should cure for a minimum of 28 days before installing Basic Rolls and Tiles. It must be fully cured and permanently dried.

III. SUBFLOOR REQUIREMENTS AND PREPARATION

1. Subfloors shall be dry, clean, smooth, level, and structurally sound. They should be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue, and other extraneous materials, according to ASTM F710.
2. Subfloors should be smooth to prevent irregularities, roughness, or other defects from telegraphing through the new flooring. The surface should be flat to the equivalent of 3/16" (4.8 mm) in 10' (3.0 m).
3. Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. Do not use solvents. All high spots shall be ground level and low spots filled with an approved Portland-based patching compound.
4. All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with an approved Portland-based patching compound.



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5. 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.

NOTE: Expansion joint covers can be obtained from:

Balco, Inc.
2626 South Sheridan
P.O. Box 17249
Wichita, KS 67217
(316) 945-9328

Schluter-Systems L.P.
194, Pleasant Ridge Road
Plattsburgh, NY 12901-5841
Phone: 1-800-472-4588

6. Always allow patching materials to dry thoroughly and install according to the manufacturer's instructions. Excessive moisture in patching material may cause bonding problems or a bubbling reaction with the SIF-848 adhesive.

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, beadblast, 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.

7. 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 one of Summit International Flooring's recommended vapor retardants must be used. If the emissions exceed the limitations, the installation should not proceed until the situation has been corrected.

NOTE: For moisture remediation, Summit International Flooring recommends the following two vapor retardant products.

1. ARDEX MC Rapid, Plus or Ultra - 724-203-5000, www.ardex.com
2. Bostik Durabond D-250 - 888-592-8558, www.bostik-us.com



8. It is essential that pH tests be taken on all concrete floors. If the pH is greater than 9, it must be neutralized prior to beginning the installation.
9. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3' x 3' test pieces of the flooring with the recommended adhesive and trowel. Allow to set for 72 hours before attempting to remove. A sufficient amount of force should be required to remove the flooring and, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces.

NOTE: This product is suitable for installation over a radiant heat source.

IV. MATERIAL STORAGE AND HANDLING

1. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
2. Roll material should always be stored laying down. Storing rubber on end will curl the edges resulting in permanent memory of the material. All edges with memory curl must be straight edge cut before installation. Do not store rolls higher than 4 rolls or for more than six months. Material should only be stored on a clean, dry, smooth surface.
3. **Inspect all materials for visual defects before beginning the installation. No labor claim will be honored on material installed with visual defects. Verify the material delivered is the correct style, color, and amount. Any discrepancies must be reported immediately before beginning installation.**

NOTE: Muscle rolls are 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.

4. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.
5. **All Muscle rolls must be unrolled and installed in the same direction. See diagram 1. Each roll is marked on the side of the core with red or orange paint to aid in this process. Use the colored edge of the core as a guide. Laying rolls in the opposite direction will cause color variations between the rolls.**

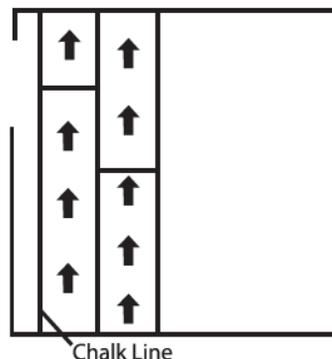


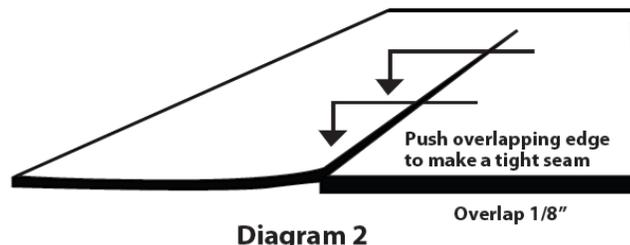
Diagram 1

6. Roll material is stretched slightly during the manufacturing process. At the job site, the installer should unroll all rolls and allow to relax overnight. A bare minimum of two hours is required. Shaking the material once it is unrolled can help it to relax.



V. INSTALLATION – ROLL MATERIAL

1. Make the assumption that the walls you are butting against are not straight or square. Using a chalk line, make a starting point for an edge of the flooring to follow. The chalk line should be set where the first seam will be located.
2. Remove the Basic roll from the shrink wrap and unroll it onto the floor. Lay the rubber on the floor in a way that will use your cuts efficiently. Cut all rolls at the required length, including enough to run up the wall a few inches.
3. If end seams are necessary, they should be staggered on the floor and overlapped approximately 3-6". End seams will be trimmed **after acclimation period** using a square to ensure they fit tightly without gaps.
4. After allowing proper acclimation and rough cuts are made you may begin the installation.
5. Align the first edge to the chalk line.
Note: it is very important that the first seam is perfectly straight.
6. Position the second roll with no more than a 1/8" overlap over the first roll at the seam. After adhesive is applied to substrate the material will be worked back to eliminate the overlap. This procedure will leave tight seams and eliminate any gaps. Care should be taken to not over compress the seam. Over compressed seams will cause peaking.



7. It may be necessary to trim the edge of the second lineal drop if the rolls do not extend the length or width of the room. Rolls laid end to end with a variance in roll width greater than 1/4" could result in peaked seams.
8. Repeat for each consecutive sheet necessary to complete the area or those rolls that will be installed that day.

METHOD 1 – GLUE DOWN

- a. After performing the above procedures, begin the application of the adhesive. We recommend SIF848 adhesive. Apply adhesive to the substrate using a 1/16" square- notched trowel.



- b. Fold over the first drop along the wall (half the width of the roll).
- c. Spread the adhesive using the proper size square-notched trowel. Take care not to spread more than can be covered with flooring within 30 minutes. The open time of the adhesive is 30–40 minutes at 70°F and 50% relative humidity.

NOTE: Temperature and humidity affect the open time of the adhesive. Temperatures above 70°F and/or relative humidity above 50% will cause the adhesive to set up more quickly. Temperatures below 70°F and/or relative humidity below 50% will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.

- d. Lay the flooring into the wet adhesive. Do not allow the material to “flop” into place; this may cause air entrapment and bubbles beneath the flooring.
- e. Immediately roll the floor with a 75–100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length.
- f. Fold over the second half of the first roll and half of the second roll. Spread the adhesive. **Spread the adhesive at right angles to the seam to prevent the adhesive from oozing up through the seam.** Roll the flooring.
- g. Continue the process for each consecutive drop. Work at a pace so that you are always folding material back into wet adhesive.

NOTE: Never leave adhesive ridges or puddles. They will telegraph through the material.

- h. Do not allow adhesive to cure on your hands or the flooring. Cured adhesive is very difficult to remove. We strongly suggest wearing gloves while using SIF848. Immediately wipe off excess adhesive with a rag slightly dampened with mineral spirits. Follow the mineral spirits with a rag dampened with water to remove the mineral spirits.

NOTE: Use mineral spirits sparingly. Saturating the rubber with mineral spirits may darken the flooring and cause the adhesive to be pushed too deeply into the pores of the rubber.

- i. If some seams are gapping it is possible to hold them together temporarily with blue painters tape. Tape **MUST** be removed after adhesive has developed a firm set which is approximately 2-3 hours. Allowing tape to remain longer than 2-3 hours or using aggressive tapes may result in adhesive residue. Summit International Flooring will not be responsible for residue left behind from tape of any kind.
- j. In some instances, it may be necessary to weigh down the seam until the adhesive develops a firm set. Boxes of cove base or tile work well. Keep traffic off the floor for a minimum of 24 hours. Floor should be free from rolling loads for a minimum of 48-72 hours. Foot traffic and rolling loads can cause permanent indentations or debonding in the uncured adhesive.

METHOD 2 – TAPE DOWN

NOTE: It is characteristic for rubber flooring to expand and contract with changes in temperature and humidity. Dependent upon conditions, double face tape may not be strong enough to hold rubber in place in every situation.



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NOTE: Tape method is not an approved procedure for ice rink applications. Please contact Summit International Flooring at 877-496-3566 for guidelines on ice rinks or outdoor applications.

- a. Dry lay the rolls onto the subfloor.
- b. Draw a pencil line beneath all seams to be taped.
- c. Use a high-quality double-faced carpet tape with a minimum width of two inches.
- d. Fold over the first drop along the chalk line (half the width of the roll).
- e. Apply two strips of the double-faced tape along the seam, one on each side of the pencil mark.
- f. Remove the release paper and place the flooring onto the exposed tape.
- g. When butting one roll next to another, overlap the seams by no more than 1/8". Work the material back to eliminate the overlap. This procedure will leave tight seams over the tape and eliminate any gaps.
- h. Hand-roll the seams to ensure adequate contact. Do not roll the entire floor.



MAINTENANCE

IMPORTANT INFORMATION FOR THE INSTALLER

**Summit International Flooring recommends
Our environmentally friendly maintenance products
For Muscle Rubber Rolls**

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.

The recommendations contained in this manual are listed because of their extensive testing and field experience with the Muscle product. These instructions are given only as guidance to our customers and for use with our recommended tools and adhesives. Summit International Flooring 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 rolls and 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 variances. It may be necessary to lay out and hand select tiles for color consistency. Any discrepancies must be reported immediately before beginning installation. Ensure that all job site and subfloor conditions are met.

Steps	Cleaning Product	Mixture	Equipment
Initial Cleaning	Cleaner	10 oz./gal. water	Soft nylon brush or approved pad*
Daily Cleaning	Cleaner	2-4 oz./gal. water	Soft nylon brush, or microfiber mop
Heavy Soil & Restorative Cleaning	Cleaner or Strip	16 oz./gal. water	Approved pad*

* Please contact Summit International Flooring at 877-496-3566 for guidance on pad selection.



VIII. 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 a cleaner (10 oz./gal. of water), using buffer or auto scrubber with a soft nylon brush or approved 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 allow 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 an approved pad or nylon brush with cleaner (2-4 oz./gal. of water).

3. Restorative Maintenance

- a. Sweep and dry vacuum floor thoroughly.
- b. Heavy scrub floor with cleaner (10 oz./gal. of water) or 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 cleaner or strip, using a buffer or auto scrubber with an approved pad.

Pick up solution with a wet vacuum, rinse with clean water and allow to thoroughly dry (6-8 hours).



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WARRANTY

All Summit International Flooring rubber flooring is guaranteed to be free from manufacturing defects on both material and workmanship. If such a defect is discovered, the customer must notify Summit International Flooring either through the contracting installer, distributor, or directly. If found to be defective within three years under normal non-abusive conditions, the sole remedy against the seller will be the replacement or repair of the defective goods, or at the seller's option, credit may be issued not exceeding the selling price of the defective goods.

Muscle roll warranty shall not cover dissatisfaction due to improper installation, normal wear or quality of installation expected from the use or environment of installation, damage from improper maintenance or usage, or general misuse, including and without limitation: burns, cuts, tears, scratches, scuffs, damage from rolling loads, damage from cleaning products not recommended by Summit International Flooring, slight shade variations or shade variations due to exposure to direct sunlight, or differences in color between samples or photographs and actual flooring.

Excluded from Warranty - These warranties do not apply to the following:

1. The exact matching of shade, color or mottling.
2. Any express or implied promise made by any salesman or representative.
3. Tears, burns, cuts or damage due to improper installation, improper use or improper cleaning agents or maintenance methods.
4. Wear from chairs or other furniture without proper floor protectors will void the warranty. Care should be taken to protect the flooring from damage by using good quality protective feet for chairs, tables, and other furniture. Chair mats may be required under chairs with casters/wheels.
5. Labor costs for installation of original or replacement material.
6. Sale of "Remnants", "Seconds", "Off Goods" or other irregular (non-first-quality) flooring materials. With respect to "Seconds", "Off Goods", or "Remnants" such are sold "as is," and Summit International Flooring makes no warranties whatsoever, express or implied with respect thereto, including warranties of merchantability or fitness for a particular purpose.
7. Problems caused by moisture, hydrostatic pressure, or alkali in the sub-floor.
8. Problems caused by uses, maintenance, and installation that are contrary to Summit International Flooring specifications, recommendations or instructions.
9. Material installed with obvious defects.
10. Damage to flooring products from high heels or spike heels.
11. Damage or discoloration to flooring products from rubber mats, rubber backed mats, or car tires.
12. Installation of Muscle with adhesives other than those recommended by Summit International Flooring.
13. Fading and/or discoloration resulting from heavy sunlight penetration and ultraviolet ray exposure from direct or glass-filtered sunlight.
14. Material that is not installed and maintained as recommended by Summit International Flooring.
15. Damage to flooring products from pallet jack and tow-motor traffic.
16. Environments where the product will be exposed to animal fats, vegetable oils, grease or petroleum based materials. (i.e.: commercial kitchens or auto repair facilities.)
17. Premature wear and deterioration from spikes and skate blade exposure.
18. Differences in color between products and photography.
19. Embossing / density deviations between product and samples, photography.



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These warranties are in lieu of any other warranty expressed or implied. Summit International Flooring shall not be liable for any incidental or consequential damages which may result from a defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. These warranties give you specific rights, and you may also have rights which may vary from state to state. To know what your legal rights are in your state, consult your local or state Consumer Affairs Office or your State Attorney General.

For complete and latest warranty information for products within the Summit International Flooring collection, please see www.summit-flooring.com.