

TUFFLOCK™

Interlocking Tiles

Technical Installation, Maintenance & Warranty Manual

Proudly manufactured in the
U.S.A. by



Revised on 3 JUN 2022, Supersedes all previous
versions. Check website for updates.

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Preparation & Installation

I. Required Tools & Materials

- Tape measure
- Metal straight edge
- Utility knife and blades
- Framing square
- Marking paint pens or chalk
- Push broom or vacuum

II. Site Conditions

A. Inspect all tiles for visual defects before beginning installation. No labor claim will be honored on material installed with visual defects. Any discrepancies must be reported immediately to Kiefer USA at (800) 322-5448 before beginning installation.

B. Care should be taken when moving large or heavy equipment over Interlocking Tiles due to the modular free-floating design of the system. Plywood or other rigid sheeting can be utilized to better disperse the load to avoid tile buckle.

C. 8mm Interlocking Tiles are the minimum approved thickness in free weight areas and extra matting is suggested in these areas to reduce tile damage from repeated high impact.

D. This product is intended for indoor use only. Approved temperature range of 55-75 °F.

E. Do not use where the flooring will be exposed to fuels, oils, solvents, chemicals, or large fluctuations in temperature.

F. This product is not designed to be used under rolling loads or in commercial applications due to the loose lay design. If full adhesion is required, please contact Kiefer USA for other recommended products.

G. 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.

H. Install Interlocking Tiles over wood or concrete subfloors, or firmly adhered resilient flooring such as vinyl, linoleum, laminate, ceramic tile, and wood is acceptable.

I. Surface should be smooth to prevent irregularities, roughness, or other defects from transferring through to the new flooring.

III. Material Storage and Handling

A. Store the material in its original, unopened packaging with all labels intact.

B. Inspect all materials for visual defects before beginning the installation. Verify the material delivered is the correct style, color, and amount. Any discrepancies must be reported to the retailer where the material was purchased.

C. Remove tiles from packaging and allow to sit in the area to be installed, at uniform room temperature, for 48 hours prior to installation.

IV. Installation

- I) **Install Interlocking Tiles so that the directional markings stamped on the bottom of the tiles point in the same direction. It is mandatory to install these tiles in the same direction for a proper fit. An 1/8" gap is allowed between the tabs to account for any expansion and contraction of the free floating flooring.**

- II) Mix tiles from several boxes or skids is a best practice for randomizing any patterns and variation reduction from the manufacturing process.
Sweep area clear of all dust and loose debris.

Wall to Wall Layout

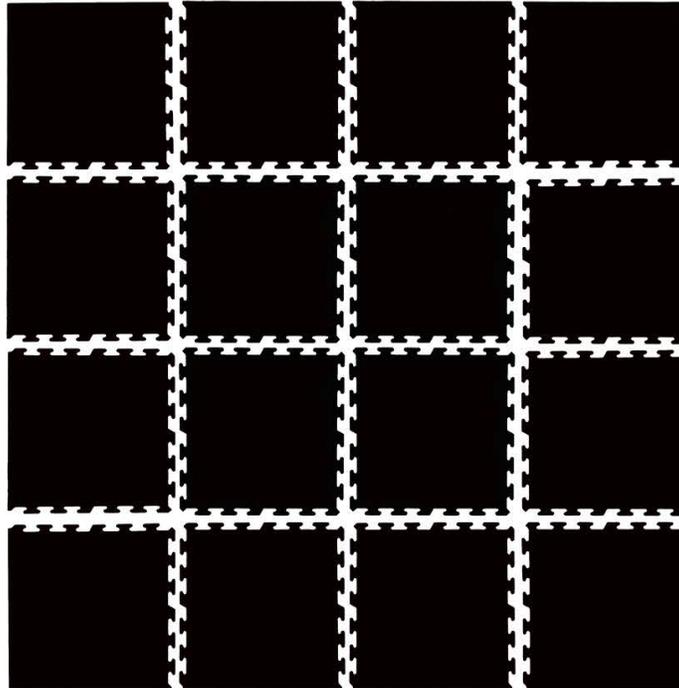
- A. Determine a starting point for the first course of tile to best suit the site area. Because most walls are not straight or corners square, tile installation generally starts in the middle of the room, so measure the width and length of the space, divide the room into 4 equal quadrants and snap chalk lines that are perpendicular (90 degrees) to each other.
- B. Place the first tile's edges where the two perpendicular chalk lines meet.
- C. Hint: Adjust the starting point to balance the tiles side-to-side to not end up with small cuts of tile against the walls.
- D. Cut the last piece to fit against the wall using a metal straight edge and a sharp utility knife. Do not compression fit the tile against the wall. Allow 1/4" around the perimeter for expansion.

Area Layout (Not Wall to Wall)

- A. For an area layout, lay out tiles to desired length and width and interlock the tabs.

- B. If desired, trim perimeter interlocking tabs from area layout with utility knife & metal straight edge to create a straight edge.

Area Layout Example



Floor protection & Cleaning

A. Initial cleaning materials

- Kiefer Clean Rubber Floor Cleaner
 - DO NOT Dilute
 - Pads & Brushes: Soft nylon brush, microfiber mop or 3M 5100 Red Pad

B. Daily Cleaning Materials

- Kiefer USA's Rubber Floor Cleaner
 - DO NOT Dilute
 - Pads & Brushes: Soft nylon brush, microfiber mop or 3M 5100 Red Pad

C. Heavy Soil and Restorative Cleaning Materials

- Kiefer Clean Rubber Floor Cleaner
 - DO NOT Dilute
 - Pads & Brushes: Brown or Black Stripper pad
- Initial Cleaning Procedure
 1. Remove all surface soil, debris, sand, and grit by sweeping, dust mopping or vacuuming.
 2. Scrub floor with Kiefer USA's recommended Rubber Floor Cleaner with a rectangular microfiber mop. A soft nylon brush may be used in more heavily soiled areas.
 3. DO NOT flood the floor with water as the Interlocking design will allow water to pass through.
- Daily/Regular Cleaning Procedure
 1. Sweep, dust mop, or vacuum floor to remove surface soil, debris, sand, and grit.
 2. Damp mop with a microfiber mop using Kiefer USA's cleaner using Daily Cleaning Materials shown above.
- Restorative Maintenance
 1. Sweep or vacuum to remove loose soil.
 2. Heavy scrub using a rotary scrubber or automatic scrubber with Brown or Black Stripper pad and solution of Kiefer USA's cleaner using Heavy Soil and Restorative Cleaning Materials shown above
 3. Pick up solution with wet vac.
 4. Rinse with clean water. Do not flood the floor
 5. Allow floor to thoroughly dry.

Warranty

All Kiefer USA 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 Kiefer USA either through the contracting installer, distributor, or directly. If found to be defective within five 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.

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 Kiefer USA, 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:

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 "seconds," "off goods," or other irregular (non-first-quality) flooring materials. With respect to "seconds" or "off goods," such are sold "as is," and Kiefer USA 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 Kiefer USA specifications, recommendations or instructions.
9. Material installed with obvious defects.
10. Damage to flooring products from high heels or spike heels.
11. Damage to flooring products from rubber mats, rubber backed mats, or car tires.
12. Installation of tiles with tapes and adhesives other than those recommended by Kiefer USA.
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 Kiefer USA.
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.

These warranties are in lieu of any other warranty expressed or implied. Kiefer USA 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 please visit www.kieferusa.com.

Product Specifications - Interlocking Tiles

Performance Criteria	Test Method	Result
Roll Width	Manufacturer	+3/4" – 0" / +19mm – 0mm
Roll Tolerance Length	Manufacturer	+ 2% - 0"
Roll/Tile Tolerance Thickness	Manufacturer	+/- 0.3 mm
23'x23" Interlocking Tile Dimensions	Manufacturer	+/- 1/8"
Tensile Strength	ASTM D412	>200 PSI
Min Flexibility 1/4" Mandrel	ASTM F137	Pass
Thermal Resistance "R"	ASTM C518	0.10 F-ft ² -h/BTU
Static Load Limit	ASTM F970 @ 400psi	< 0.005 in.
Slip Resistance / Coefficient of Friction	ASTM D2047	> 0.9
VOCs / FloorScore / CHPS / CA 01350	ASTM D5116	Certified
Color Stability	ASTM F1515	Good
Abrasion Resistance	ASTM D3389 / EN 649	<1g, 100 cycles
Flammability – Pill Test	ASTM D2859	Pass
Vertical Deflection / Deformation	ASTM F2772	0.7 mm
Surface Effect Slip Resistance	ASTM F2772	Pass
Ball Rebound	ASTM F2772	99.70%
Force Reduction	ASTM F2772	12.60%
Ambient Noise Reduction, Sabin/ft ²	ASTM C423	0.1
IIC	ASTM E492	53 minimum
Delta IIC	ASTM E2179	22
Energy Restitution	Deltec	71.90%
Sound Transmission Coefficient	ASTM E90	54
Chemical Resistance	ASTM F925	
		1. 5% Acetic Acid: No Change
		2. 70% Isopropyl Alcohol: No Change
		3. 5% Sodium Hydroxide: No Change
		4. 5% Hydrochloric Acid: No Change
		5. 5% Ammonia: No Change
		6. Bleach: No Change
		7. 5% Phenol: No Change
		8. Sulfuric Acid: No Change