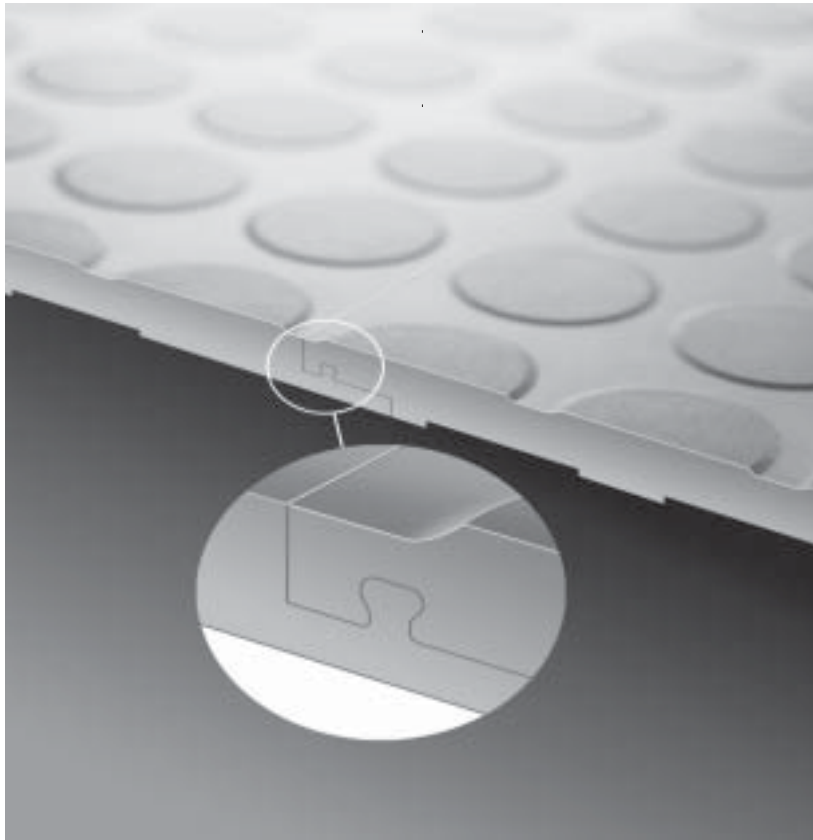


Tuff - SealTM

Interlocking Floor Tile



Installation

Maintenance

Warranty

Flooring Adventures LLC.

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INSTALLATION INSTRUCTIONS

'*Tuff-Seal*' interlocking tile has been developed with the main purpose of solving some of the flooring industry's most common problems. '*Tuff-Seal*' tile provides quick and easy flooring installations for a vast range of commercial, residential and industrial applications.

The secret to the simplicity of the '*Tuff-Seal*' flooring system lies in the unique '*Tuff-Seal*' design. This patented, interlocking design features a unique hidden joining and sealing method.

The '*Tuff-Seal*' joining system enables you to lay the tiles quickly and easily on any firm, flat surface, using only a mallet, utility knife and common installation tools. For most applications, the tile is installed without adhesive.

'TUFF-SEAL' FEATURES:

- **Fast and easy installation:**
No special tools or installation expertise required, most installations require no adhesive.
- **Little or no production down time:**
Because '*Tuff-Seal*' requires no adhesives or curing, it accepts foot traffic and rolling loads immediately.
- **Minimal sub-floor preparation:**
'*Tuff-Seal*' may be installed over any smooth, structurally sound sub-floor.
- **Install over contaminated or moisture problem slabs:**
'*Tuff-Seal*' may be installed where other floors cannot, **with huge cost savings!**
- **Install over new/uncured slabs:**
'*Tuff-Seal*' may be installed over uncured concrete, saving precious days in the construction schedule.
- **Reusable:**
Tiles can easily be removed and re-laid in another area if required.
- **Installations in VOC sensitive or restricted areas:**
With the '*Tuff Seal*' interlocking system, no VOC 's are emitted from solvents, sealers or adhesives.
- **Easily repaired:**
Damaged tiles are easily removed and replaced.

JOB SITE CONDITIONS

'*Tuff-Seal*' is recommended for interior applications only. The areas to receive flooring should be weather-tight and maintained at a minimum uniform temperature of 65° F for 48 hours prior to and during the installation.

The material must be climatized at room temperature for a minimum of 24 hours before starting the installation. Failure to climatize the tile prior to installation may result in variances in tile size and difficulty in joining the '*Tuff-Seal*' interlock.

SUB-FLOOR PREPARATION

Because of the '*Tuff-Seal*' interlocking system, only minimal sub-floor preparation is required or needed when the tile is installed in a loose lay configuration. It is not necessary to remove old paint, epoxy coatings, concrete sealers and/or curing compounds, oils, grease or other contaminants that normally must be removed.

NOTE: On concrete sub-floors, if a moisture vapor emission problem exists, the existing flooring material and adhesives should be removed and the concrete shot blasted to help prevent any potential microbial growth problems.

Wood sub-floors must be rigid, free from movement and have at least 18" of well-ventilated air space below. Subfloor should be smooth, rigid, flat and level.

- Remove base shoe moldings if present.
- Remove, grind/sand down any protrusions such as: nails, bolts or lumps in the sub-floor.
- Fill any large holes, voids or cracks using a cementitious base-patching compound.
- Sweep or vacuum floor to remove all dirt and debris.

HAZARDS:

SILICA WARNING – Concrete, floor patching compounds, toppings and leveling compounds can contain free crystalline silica. Respirable crystalline silica (particles 1–10 micrometers) can be produced by cutting, sawing, grinding or drilling. Respirable silica is classified by OSHA as an IA carcinogen and is known to cause silicosis and other respiratory diseases. Avoid actions that cause dust to become airborne. Use local or general ventilation, or protective equipment, to reduce exposure below 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 asbestos content. Consult the document titled, *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.

LOOSE LAY INSTALLATION

Installation of the tile should begin in a corner along the straightest wall. Leave a ¼” space between the tile and the wall to allow for the material to expand and contract with temperature changes.

Wood doorjamb can be undercut so the tile can slip underneath. With metal doorjamb – cut the flooring material to within 1/8” and then caulk around the jamb.

Cuts may be made using a carpenter square and utility knife with a sharp blade, table saw, band saw, tile cutter, or a Roto Zip™. (Photos 2-5) Border tiles should be cut ¼” away from the wall to allow for expansion and contraction of the tile due to temperature changes.

If your application will have an excessive amount of fluids on the floor, it is recommended to caulk the gap between the wall and the tile using a polyurethane or acrylic adhesive commonly found at The Home Depot, Lowes, etc. To provide maximum expansion/contraction capabilities and to prevent the adhesive caulk from adhering to the concrete, place 2” wide masking tape tight to the wall, around the perimeter of the room and other permanent fixtures (Photo1).



Photo 1

Carefully measure 18¾” out at each end of wall AB to create points G H. Snap a chalk line between point G and H to create line G H (Figure 1).

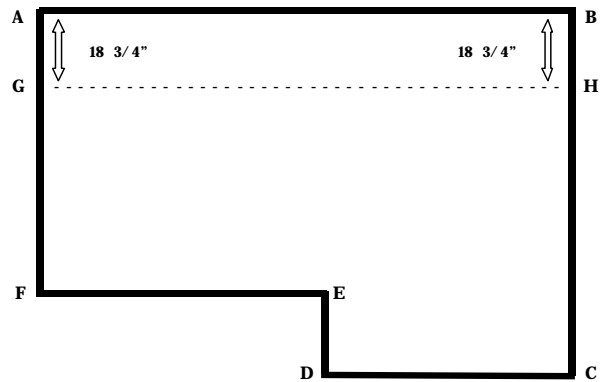


Figure 1

Lay tiles with the finished edge to the walls (Figure 2) and the tab edges to the top (along the chalk line G–H) and right side. It is very important to lay the first row very straight, this will affect the entire installation.

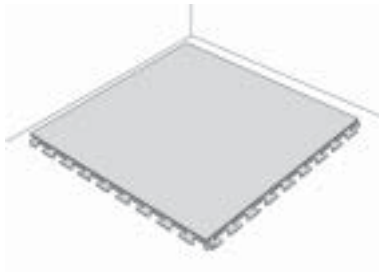


Figure 2

Lay the tile from your left to your right always placing the finished edge on top of the tab edge. When installing each tile, line up the tabs at the corner to help align the 'Tuff-Seal' joining system (Figure 3).



Figure 3

Using a hard, no bounce, rubber mallet, tap tile together starting from the corner, working your way to the outside (Figure 4).



Figure 4

Install one row at a time, completing each row before beginning the next row. When installing the second and consecutive rows, line up the corner tabs. Using the rubber mallet, tap tiles together, starting at the corner and working your way out to each edge (Figures 5, 6).



Figure 5



Figure 6

CUTTING TILE

'Tuff-Seal' may be cut using several methods; utility knife, tile cutter, table saw, band saw and for intricate cuts, a RotoZip™ or Dremel™ works very well.

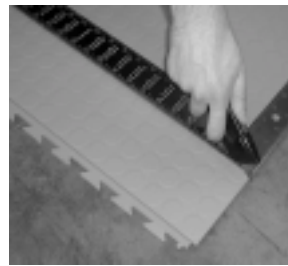


Photo 2



Photo 3

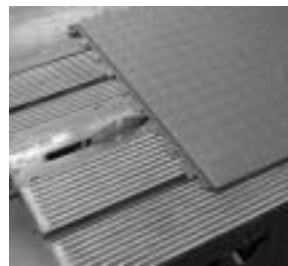


Photo 4



Photo 5

JOINT GLUED INSTALLATION

In certain applications it may be advantageous to adhere the 'Tuff-Seal' interlock using the FA 2010 adhesive. Apply a very thin bead of adhesive into the joint (Photo 6).

Apply a dot of adhesive on each corner of the male tab (Photo 7). Install next tile immediately into wet adhesive.

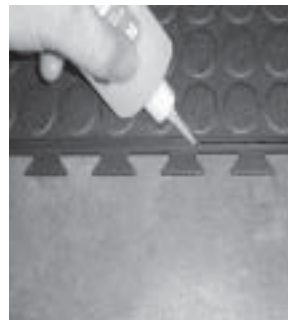


Photo 6

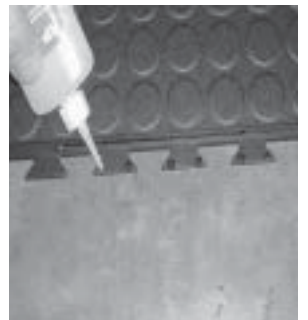


Photo 7

FULL SPREAD INSTALLATION

'Tuff-Seal' tile may also be installed in a full spread installation using the FA720 adhesive and a 3/32" "u-notch" trowel. On a full spread application, normal subfloor preparation will be required. Moisture emission should not exceed 5 lbs per 1000 sq. ft. per 24 hours.

FINISHING INSTALLATION

If your application has an excessive amount of fluids on the floor, it is recommended to caulk the 1/4" gap between the wall using a polyurethane acrylic adhesive to prevent the fluids from seeping underneath the newly installed tile at the perimeter. These products are commonly found at The Home Depot, Lowes, etc.

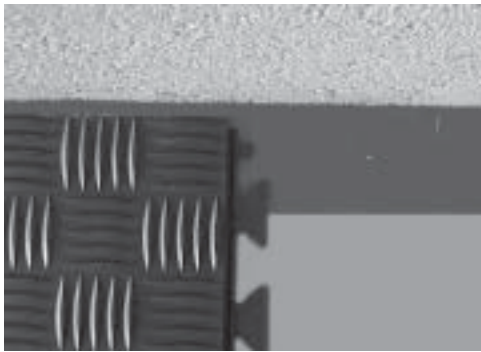


Photo 8



Photo 9

Install wall base so that it barely rests on top of the tile and does not restrict the tiles ability to expand and contract.

REDUCER STRIPS

Flooring Adventures produces color-matched 1 1/2" wide reducer strips.

Trim tile to desired size, apply FA 105 adhesive to the reducer flange that slips underneath the tile, slide reducer flange under tile and hand roll to ensure proper adhesive transfer. Do not glue the reducer to the subfloor.



Photo 10



Photo 11



Photo 12

MAINTENANCE INSTRUCTIONS

Tuff-Seal **Interlocking Floor Tile**

Homogeneous Molded Interlocking Vinyl Tile

'*Tuff-Seal*' tile is compatible with all normal maintenance practices. The maintenance procedures that you choose should be based on; size, area of installation, appearance level you desire, (high or low gloss) as well as your maintenance equipment.

Initial Cleanup/Maintenance

1. Remove all surface soil, debris, sand and grit by sweeping, dust mopping or vacuuming.
2. Scrub the floor with a neutral pH (7-8.5) detergent.
 - Apply cleaning solution with a mop and bucket, scrub with a rotary scrubber with soft nylon brush or automatic scrubber with soft nylon brushes.
 - Pick up solution with a wet -vac or mop and bucket.
 - Rinse with clean water, allow to dry.
3. Apply floor finish. (**If desired**)
 - Apply 3-4 coats of high quality, commercial, acrylic floor finish.
 - Apply with a clean finish mop or finish applicator.
 - Allow 30 minutes dry time between each coat.

Daily/Regular Maintenance

Remove all surface soil, debris, sand and grit by sweeping, dust mopping or vacuuming.

Option 1 – dry maintenance method:

- Spray, clean and buff using a rotary machine (175-1500 rpm) with an appropriate pad and spray buff solution.

Option 2 -- wet maintenance method:

- Scrub or mop with neutral pH (7-8.5) detergent. If floor is exposed to grease or oil, use a degreasing detergent.
- Apply cleaning solution with a mop and bucket, scrub with rotary scrubber with soft nylon brushes or automatic scrubber with soft nylon brushes.
- Pick up solution with a wet vac or mop and bucket.
- Rinse with clean water and allow floor to dry.

Scrub and Recoat

- Dust mop to remove loose soil.
- Heavy scrub using rotary scrubber, or automatic scrubber with scrubbing pad and double strength of neutral pH (7-8.5) detergent.
- Pick up solution with a wet vac.
- Rinse with clean water and allow to thoroughly dry.
- Apply 1-2 thin coats of floor finish following initial application procedures.

Flooring Adventures does not warrant or guarantee any maintenance products or their performance.

Flooring Adventures, LLC

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LIMITED 5 – YEAR WARRANTY

Limited Warranty. Flooring Adventures LLC. warrants that its floor covering products, when installed using Flooring Adventures recommended procedures, shall perform in accordance with their published specifications and shall be free from manufacturing defects under normal use for a period of five (5) years from the date of original installation. THIS IS THE SOLE AND EXCLUSIVE WARRANTY PROVIDED BY FLOORING ADVENTURES, AND FLOORING ADVENTURES MAKES NO OTHER WARRANTY, EITHER EXPRESS OR IMPLIED, OR ANY OTHER KIND INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This limited warranty shall extend only to the original purchaser or original end-user and is not assignable.

Limitation of Remedies. Flooring Adventures' only obligation hereunder will be to deliver to the original purchaser or original end-user, free of charge, sufficient material of same or similar quality to replace the defective product. Provided, however, if a warranty claim is made within one (1) year after installation and the defect could not be visible before installation or reasonably discovered prior to installation, then Flooring Adventures will assume reasonable installation costs of the replacement product. No labor cost will be covered on claims made later than one (1) year after date of original installation under any circumstances. Except for warranty claims asserted within one (1) year and which are based on defects that could not be visually seen or reasonably discovered prior to installation, FLOORING ADVENTURES SHALL HAVE NO OBLIGATION TO REMOVE ANY DEFECTIVE PRODUCT OR INSTALL ANY REPLACEMENT PRODUCT OR PAY ANY COSTS OF REMOVAL OR INSTALLATION. ANY REMOVAL OR REPLACEMENT SHALL BE THE SOLE-RESPONSIBILITY OF PURCHASER OR END-USER. Replacement will be provided only after Flooring Adventures' inspection of the defective product. Flooring Adventures and its representatives must be permitted reasonable access to facilities for the inspection and testing of the product. All claims for defect shall be deemed waived unless made in writing, delivered to Flooring Adventures during the warranty period and not later than thirty days after discovery of the defect. Purchaser and end-user have the sole responsibility to properly install and maintain the products. Flooring Adventures shall have no obligation to replace any product which has been subjected to misuse, neglect, accident or abuse, or which has not been installed or maintained in accordance with Flooring Adventure's written instructions, or which has been exposed to undue wear and tear, excessive moisture, solvents, alkali or acids. In addition to the foregoing limitations, Flooring Adventure's limited replacement warranty shall not cover surface stains including asphalt, driveway sealer and rubber wheels, dissatisfaction due to improper maintenance or installation, damage from improper maintenance or usage or general misuse including, without limitation, burns, cuts, tears, scratches, scuffs, indentation damage from rolling loads, improperly casted carts, damage or discoloration from adhesive or floor care products not recommended by Flooring Adventures, extended direct exposure to sunlight, excessive moisture, alkaline, hydrostatic pressure damage from the subfloor, mold or mildew, installation of tile over gypsum based patching and leveling compounds or difference in color between samples or photographs and the actual flooring. THE REPLACEMENT (AND REASONABLE INSTALLATION COSTS ONLY UNDER CONDITIONS SET FORTH ABOVE) OF ANY COVERED DEFECTIVE PRODUCTS IN THE MANNER SET FORTH ABOVE SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDY HEREUNDER AND FULFILLMENT OF ALL THE OBLIGATIONS OF FLOORING ADVENTURES WITH RESPECT TO THE LIMITED WARRANTY GIVEN HEREIN. This exclusive and limited remedy shall not fail of its essential purpose by reason of timeliness, causes beyond Flooring Adventures reasonable control or the general concerns of purchaser or end-user.

Limitation of Liability. Except for the payment for reasonable installation costs under the limited conditions set forth above, Flooring Adventures' total, complete and exclusive liability hereunder shall be limited to replacement of defective product as provided herein and shall not exceed the value of the defective product furnished. Purchaser and end-user waive all other remedies, warranties and liabilities of any kind, express or implied, whether arising by operation of law or otherwise. FLOORING ADVENTURES SHALL NOT BE LIABLE FOR LOSS OF PROFITS, DIRECT, INDIRECT, INCIDENTAL, SPECIAL, CONSEQUENTIAL OR OTHER DAMAGES UNDER THIS LIMITED WARRANTY OR FROM ANY CAUSE OF ACTION WHATSOEVER, WHETHER BASED UPON WARRANTY, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts and 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.

If you experience any problem with Flooring Adventures floor covering, please contact the contractor who installed the flooring to help identify whether the problem is related to manufacturing, installation or maintenance. However, Flooring Adventures is not bound by any opinion or recommendation of the contractor and the contractor is not an agent or representative of Flooring Adventures. Retain all information and documents until the problem is resolved.

If the problem is manufacturing related and you are not satisfied with the contractor's response, please notify Flooring Adventures in writing and explain the problem thoroughly:

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This limited warranty may not be extended, altered or waived except in writing signed by any authorized officer of Flooring Adventures. Any action for breach hereunder must be commenced within one year after the cause of action has accrued. This limited warranty shall be construed and enforced under the laws of the Commonwealth of Virginia without regard to conflicts of laws.

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