

## RigidTile™ FIRM Premier – Glue-down

### DEAR CUSTOMER,

You have purchased a high quality **TORLYS RigidTile™ FIRM Premier** Floor, well suited for all residential rooms, including bathrooms\*. Please take a moment to review these installation instructions and plan your installation carefully.

**Please note** IMPROPER INSTALLATION CAN VOID WARRANTIES. Installation of 100 square feet of flooring is enough to verify quality and acceptance.

*TORLYS RigidTile™ flooring is not suitable for use in SAUNAS or other abnormal use or conditions including, but not limited to, water damage from plumbing, storms, floods and water saturation on the surface or trapped between subfloor and floor.*

RigidTile™ is waterproof, however moisture issues should be rectified at the jobsite before installation to prevent damage to the substrate and surrounding structure, and to discourage the growth of mould and mildew.

If encountering difficulty during installation, STOP and contact TORLYS Customer Service at: 1-(800) 461-2573 and ask for the Technical Department.

**IMPORTANT** \* In bathroom installations, the expansion gap must be filled with flexible silicone sealant.

**TORLYS RigidTile™ FIRM Premier** can be installed in 3-season homes (from -4 °F to 122 °F / -20 °C to 50 °C). Thermal shock - very rapid and extreme changes in temperature - may cause damage to the floor. The use of a continuous vapour barrier and proper insulation is mandatory in the crawl space.

**Installation in areas exposed to temperatures in excess of 122 degrees Fahrenheit (50 degrees Celsius) are not recommended.**

**Closed-in porches, solariums, screened in gazebos - ALL of these can experience rapid and unbalanced changes in the interior environment that cannot be properly controlled. Installation under these conditions is NOT recommended.**

### SET UP

To ensure you have sufficient material on hand, calculate the total area of the room and add 5 % of material to allow for custom cutting. Forty-eight hours prior to installation, place the closed packages of flooring and the adhesive, in the middle of the properly conditioned room (see **Layout** section), **NEVER** against a wall or in a corner, nor near hot or cold air-vents or in direct sunlight.

Do not open the packages until you are ready to begin installation. Flooring is to be stored on a flat floor to prevent distortion.

**Do not install TORLYS RigidTile™ FIRM Premier until it is acclimatized to the required room temperature of 60 – 70 °F (16 - 21°C); the relative humidity (RH) in the air should be between 35 % and 65 %.**

The required room temperature should be maintained for 48-hours before, during and 5 days after installation. Temperature of subfloor should never exceed 80 °F (27 °C).

Inspect each tile before installation. If you find any defects, do not use the tile. Contact your supplier immediately.

**Please Note : The TORLYS Warranty does not cover labour for installation of tiles with visible defects.**

### PREPARATION

Remove any existing flooring, baseboards, quarter-rounds and thresholds and undercut door jambs, using a piece of flooring material as a guide. Repair all defects in the subfloor. All existing residual adhesive shall be removed or covered with a high quality self-leveling compound designed for this purpose.\*

**(IMPORTANT :** Old adhesives may contain asbestos. For specific removal instructions, please refer to the Resilient Floor Covering Institute’s publication *“Recommended Work Practices for Removal of Resilient Floor Coverings”*).

*\*Manufacturers such as Mapei have products that meet these criteria for self-leveling and should be contacted for further information.*

### CHECK THAT :

- The job-site has been cleaned and cleared of debris that could potentially damage the finish of your TORLYS floor.
- The doors can still open and close after installing the floor.
- Doors may have to be cut to supply sufficient clearance.
- The door jambs may need to be adapted to install the floor under them.
- For aesthetic appearance we suggest that you measure the width of the room to ensure that the width of the pieces of the first and last row is approximately the same and not less than 2” (5 cm). Cut the width of the pieces of the first and last row as needed.

## TOOLS

- Last-Board Puller\*
- Tapping Block\*
- 3/8" (10mm) Wedges\*
- Saw, Utility Knife
- The appropriate trowel size for the adhesive used.
- 100 pound three-section roller
- Mask (3M™ Tekk Protection™ Sanding and Fibreglass Disposable Respirator, 8200HB5-A), or equivalent.
- Hammer (1 lb.)
- Tape Measure
- Pencil
- Floor scraper

When sawing pieces off the tiles, use a fine-toothed hand saw, jigsaw, chop-saw, guillotine or utility knife.

\* **Note** : available in a TORLYS Installation Kit

**OPTIONAL** : for ease of installation use TORLYS Bulldog™ Tool.

## SUBFLOORS

Repair any defects in the subfloor. Subfloor irregularities should be repaired using a cement-based polymer-modified floor leveling compound. Installation over an uneven subfloor will cause premature damage to the floor and make the floor feel unstable. All subfloors must be clean, free of dust, grease, paints, oils, curing compounds, sealers, or any other foreign material which may interfere with proper adhesion. All subfloors must be firm, flat (within 1/8" – 3.2 mm in 6ft – 1.8 m or 3/16" - 4.8 mm in 10 ft – 3 m), smooth and dry. The moisture on concrete slabs must be less than or equal to 80% RH with *in-situ* probes as per ASTM F2170, 12% or less on plywood. The pH of concrete must be between 7-9.

Self-Levelling Compounds should be obtained from a quality manufacturer that provides a warranty for this product's use as a flooring underlayment. Failure to have quality floor levelling will result in adhesion failure, ridging over underlayment joints or discolouration of floor tiles. Follow the flooring adhesive manufacturer's recommended substrate requirements.

RigidTile™ may be installed over ceramic, terrazzo or a single layer of non-cushioned resilient floors with proper preparation. Existing floors must be firmly attached to the substrate and be clean, firm and flat/level as described above. Fill all embossing or grout joints with the appropriate embossing leveller or patching compound following that manufacturer's instructions. If there is any uncertainty, contact TORLYS Technical Department.

It is essential that the crawl space under subfloors is sufficiently ventilated. Remove any obstacles and provide sufficient ventilation. A 6 mil (0.15 mm) poly vapour barrier must be installed on crawl space floor.\*

\* In construction terminology, a crawl space is defined as : "a shallow space below the living quarters of a house, normally enclosed by the foundation wall...".

**Expansion Joints on Concrete Slabs** : Expansion joints allow for movement between two concrete slabs.

If flooring is required to be installed over a concrete expansion joint, flooring should be cut on top of that expansion joint and the width of that cut should be enough to accommodate the type of transition moulding selected.

**Note** : this gap or any exposed edge can be finished with a small bead of flexible silicone. Holes, grooves and other imperfections should be filled with a high-quality polymer-modified cement-based patching compound.

## Approved Subfloors for Glue down Installation

### Concrete Subfloors

Concrete substrates/subfloors must comply with ASTM F710 (*Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring*) and be free of any contaminants that may interfere with adhesion.

Moisture content and pH of the concrete must meet the requirements above. Electronic (pinless) meter readings are not considered a replacement for an ASTM F2170 *in-situ* test.

Lightweight concrete (gypsum) shall have a minimum density of 90 lbs/cubic foot and a minimum compression strength of 2500 psi. Lightweight/gypsum based concrete and very porous concrete must be primed with an adhesive primer (such as Mapei Primer-T™) before application of adhesive. Bond tests are strongly recommended.

### Wood Subfloors

Wood subfloors should be a standard double-layer construction and a minimum total thickness of 1" (25 mm). The finish layer should be 1/4" (6 mm) thick, sanded one side and APA or CAN/CSA approved and warranted as a resilient underlay, or an equivalent as specified/warranted by the panel manufacturer. Fasten panels as per the panel manufacturer's instructions. Any failure due to the underlayment is **NOT** the responsibility of TORLYS. Porous underlayments should be primed (such as Mapei Primer-T™) before application of adhesive.

## Examples of NON-Approved Substrates

- Carpeting/Carpet Pad
- Cushion Back Sheet Vinyl\*
- Floating Floors
- Hardwood Over Concrete
- Cement Tile Backer Boards
- Ferrous Substrates
- Sleeper Substrates

*\*Beware that old resilient flooring may contain asbestos and products with asbestos will require specialized removal.*

**Non-Recommended Subfloors** : Particleboard, flakeboard, chipboard, and any other similar products with low dimensional stability, variable porosity, etc., should not be used as subfloors for gluing down **TORLYS RigidTile™ FIRM Premier**. Use only underlayments specifically designed for use under resilient floors.

Do not install **TORLYS RigidTile™ FIRM Premier** over any existing carpet, cushioned resilient\* or floating floor covering.

## LAYOUT

The floor should be installed from several cartons at the same time, shuffling tiles to ensure colour and shade mix. The ideal environment is a temperature of 60°F - 70°F (16 °C – 21 °C) and the RH in the air should be between 35% and 65% - these conditions should be kept constant while the adhesive achieves full bond strength (approximately 5 days).

### Match Transition Mouldings (e.g. Stair Nosing)

**For the best appearance compare the transition mouldings and flooring before installation, identify the pieces that best match the mouldings for colour and grain, set them aside and then install them as needed.**

**Note: If using flush-mount stair nosing in conjunction with this flooring, do not commence installation before referring to the stair nosing instructions; for details go to: [www.torlys.com](http://www.torlys.com).**

The floor will be stronger and more stable if the joints are staggered at least 1/3 of the tile in each row.

A minimum of 1/8" (3.2 mm) expansion wedges must be used on all walls and vertical obstructions to allow for proper expansion/contraction space. The wedges should be removed after the flooring installation has been completed, and the expansion/contraction space should be covered by baseboard, quarter round, and/or drywall (if wall is undercut).

**Note:** Never hit the tiles directly with your hammer or rubber mallet. Always use a **TORLYS Tapping Block** or **TORLYS Bulldog™ Tool** to protect the edges of the tiles. Make sure the Tapping Block is in good condition. Hold Tapping Block down when using it. Gently tap all tiles into their final locking position.

## GLUE-DOWN PROCEDURES

### Recommended Adhesive - TORLYS Smart Glue

TORLYS Smart Glue is a wet-set adhesive, allowing for some adjustment during installation (working time approximately 45 minutes); forms a stronger, permanent bond. Must be used on vertical (eg., risers or walls) or ramp applications.

TORLYS Smart Glue Water Based Acrylic Flooring Adhesive, requires the use of a 1/16" x 1/16" x 1/16" square trowel, following the installation instructions provided by TORLYS on the container.

**IMPORTANT** : Flash/open time is the waiting time required before installing flooring. Working time is the window of time for the adhesive to accept flooring. These times may vary depending on type of glue, temperature, humidity, substrate porosity, trowel size and jobsite conditions. Trowel sizes may vary depending on substrate and the site conditions.

When installing over non-porous substrates using TORLYS Smart Glue, additional flash/open time is required – refer to the container instructions.

**NOTE** : It is the responsibility of the installer to determine whether or not the subfloor to be covered is porous.

To determine if a subfloor is porous, place two droplets of water in various areas. If the subfloor is porous, the water will be absorbed within a few minutes.

The use of an adhesive primer may be necessary on extremely porous subfloors or difficult to bond to surfaces. Gypcrete or substrates with excessive chalking must be cleaned and then also primed with a product such as Mapei Primer T™ to ensure proper bonding.

## INSTRUCTIONS

### 1) GENERAL

Use a hammer and the special TORLYS Tapping Block (positioned as shown in diagram below) or TORLYS Bulldog™ tool. Never use any other tapping block, as it may damage the tiles.

Use a TORLYS “Last-Board Puller” to pull exposed joints tight, where a tapping block and hammer will not fit.

For a short edge, angle the tile in place, and if necessary, use several small taps until the tiles click together completely.

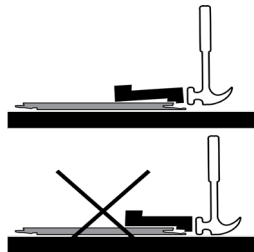
For a long edge, and if you cannot **angle-click the tiles** (e.g. when installing final row) tap tiles together gradually.

Begin by lightly tapping at the corner of the tile until the joint has clicked together. Repeat the process approximately every 12” (30 cm) until the entire long edge of the tile has clicked in with the next tile.

**Never attempt to knock the joint into place with one hit.**

For the best results, follow the installation instructions and use only :

- A) **TORLYS INSTALLATION KIT**  
(Wedges, TORLYS tapping block and last-board puller)
- B) **TORLYS MAINTENANCE PRODUCTS**  
[TORLYS EcoCare (pH Neutral) Cleaner]
- C) **TORLYS BULLDOG™ TOOL**

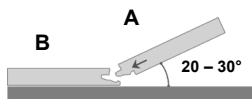


### 2) CORRECT INSTALLATION

**A minimum of 1/8” (3.2 mm) expansion/contraction space** must be provided at all walls and vertical obstructions. These gaps may be covered by a moulding that is not fixed to the floor, but to the wall.

Begin installing the floor from the left corner of the room. Always remember that the easiest way to install the floor is by placing the tongue (A) into the groove (B).

Lift tile being installed to 20 - 30 degree angle and keep tongue of the tile in the groove of installed tile, engage short end joints first.



With gentle pressure and a gentle rocking motion push the tile down. If necessary, finish locking the tile with a tap into place using a tapping block or Bulldog tool.

You will not be able to use the TORLYS Bulldog™ tool to repair flooring that is glued down.

### 3) THE FIRST ROWS

For aesthetic appearance we suggest that you measure the width and length of the room, to ensure that the outside rows are approximately the same width and that the end pieces are also balanced. None should be less than 2” (5 cm). Cut your first row to the calculated width and the two end pieces to the correct length (Diagram 1).

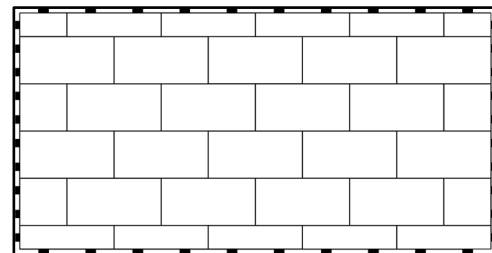


Diagram 1

If starting with a full tile, saw off the tongue of the first tile, both on the short as well as the long edge. For all other first-row tiles cut off the tongue on the long edge. Orient the first tile in the left corner of the room. Maintain a minimum spacing from the wall and all vertical obstructions, of 1/8” (3.2 mm), using wedges.

Start spreading the glue using the recommended trowel\*. Hold the trowel at a 60-degree angle to the subfloor, making sure the subfloor is covered 100% with adhesive, without voids or puddles. Only apply as much adhesive as can be covered within the allotted working time.

**\*NOTE :** Replace trowels with worn notches.  
Do not re-notch worn trowels.

Install flooring after the appropriate flash/open time :

**IMPORTANT :**

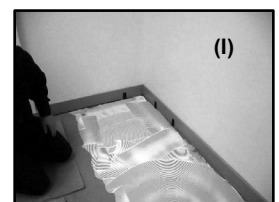
WORKING TIME OF ADHESIVE MUST BE OBSERVED

TORLYS Smart Glue	Approximate Flash/Open Time	Working Time
Porous	5 - 10 minutes	45 minutes (approximate)
Non-Porous	Until Dry to Touch	45 minutes (approximate)

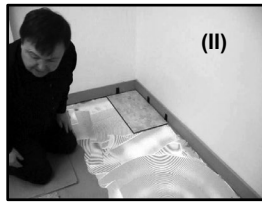
Do not spread more adhesive than can be worked within the appropriate time frame.

Do not spread wet lay adhesive farther than you can reach (I).

For coverage refer to the label on the adhesive container.

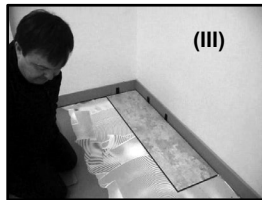


Continue by pressing firmly into the adhesive bed to ensure adequate transfer. Lay the tiles with the groove side facing you in order to use the tongue/groove system. Lay the first row along the wall (II).

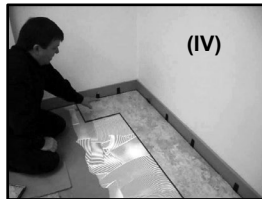


## IMPORTANT

Turn the tile inclined with the end joint into the already laid tile. Click the two together. Ensure that the tiles of the first row are straight (III).

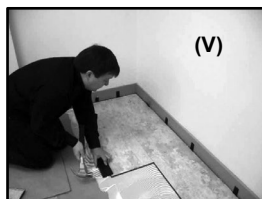


The cut piece from the first row may need to be cut to become the starting piece for another row. Install the cut edge facing the wall, with the expansion wedge in place. Now angle this piece and click it into the first tile of the first row (IV).



Continue the second row with a full piece, engaging the short ends first. Lift both pieces to a 20 - 30 degree angle and engage them to the previous row.

**If necessary, lightly tap both the long and short sides to make sure the pieces are fully engaged. Repeat until the row is complete (V).**



Do not attempt to knock the joint into place with one hit. Continue this method until the final row.

**PLEASE NOTE :** Cut the last tile of each row leaving a minimum 1/8" (3.2 mm) gap to the wall.

## 4) THE FINAL ROW

Measure and cut the tiles of the final row so that there is a minimum 1/8" (3.2 mm) expansion/contraction space between the final row and the wall. These tiles will be angled and tapped into the last row using the **Last-board Puller or TORLYS Bulldog™ Tool**.

**IMPORTANT :** Immediately after installation, floor must be rolled with a 100 pound three-section roller in both directions. Use a hand roller in areas not reached with the 100 lb roller.

## 5) UNDER DOOR FRAMES

Saw the tiles so that after installation there is a minimum 1/8" (3.2 mm) expansion/contraction space.

This expansion/contraction space can be covered by undercutting the door jamb. If you cannot rotate this tile, use the TORLYS Tapping Block or last-board puller, and hammer, to tap the tiles together.

## 6) COMPLETING THE INSTALLATION

After the floor adhesive has set (minimum 24 hours), you can remove all spacer blocks and install baseboards and/or quarter rounds. Never attach the baseboard to the floor itself. You need to allow the floor to expand and contract underneath the baseboard. Finish around pipes with pipe collars or flexible silicone.

Where no mouldings or baseboards can be installed, or where undercutting is not an option, fill the expansion/contraction space with flexible silicone seal.

### Post Installation :

Prevent all traffic for a minimum of 24 hours. Restrict heavy traffic and rolling loads for a minimum of 72 hours after installation. Do not wash or begin maintenance procedures on the floor for a minimum of 5 days after installation to allow the adhesive to properly cure. Vacuum and then clean the floor with the use of a TORLYS EcoCare Cleaning Kit.

## 7) INSTALLATION OVER RADIANT HEAT

When installing over an in-floor radiant heat system, maintain the subfloor temperature at 60 - 65°F (15 to 18°C) for 24 hours before, during and 48 hours after the installation. The surface temperature of the subfloor should never exceed 80 °F (27 °C).

For details and limitations, please check the "[TORLYS Radiant Heat Warranty and Installation Instructions](#)". Visit our website at: [www.torlys.com](http://www.torlys.com), for detailed information.

## 8) PREVENTATIVE MAINTENANCE

To ensure the full benefit of your **TORLYS RigidTile™ FIRM Premier** floor and to extend its beauty for years to come, we recommend the following preventative maintenance suggestions :

- **Install floor protectors** on furniture legs to protect against scratches and dents. These furniture pads should have no wrinkles and be made of soft, non-staining material (e.g. felt pads); the felt pads should be of adequate size to support the weight of the furniture and a minimum of 1” (2.5 cm) in diameter. The floor protectors should sit flat on the floor and be inspected periodically for cleanliness and wear. For heavy pieces of furniture (e.g. couches) the use of coaster-cups is recommended.
- **Do not drag furniture** or other heavy objects on the floor. Avoid high heels or shoes that need repair. Some types of high heel shoes can severely damage the surface of any floor covering.
- **Close your curtains or blinds** where continuous or extreme sunlight will shine on your floor. Also, UV protection in windows will help with the performance of your furnishings. A combination of heat and sunlight can cause most furnishings and flooring to fade or change colour.
- **Sweep and vacuum floor regularly.**
- **Avoid sand and grit build up.**

At doorways and areas of heavy wear, use protective mats or rugs that are marked “non-staining”.

For dry maintenance, use a dust mop, vacuum cleaner or dry cloth. For damp maintenance, **use the TORLYS EcoCare Cleaning Kit**, available from your Authorized Dealer, and follow the maintenance instructions on the container.

**Basic cleaning is with a damp cloth. Excess water can cause a slip and fall hazard.**

**IMPORTANT : To keep your warranty valid, use TORLYS recommended maintenance products and follow TORLYS maintenance instructions. For more information on maintenance products and instructions visit our website at: [www.torlys.com](http://www.torlys.com)**

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