

Installation Instructions: Butt Joined Tile

1) GENERAL

ReadyRazzo® Tiles are intended for indoor use only and must be installed by a professional flooring installer experienced in commercial resilient floorcovering systems. Installers must carry sufficient professional liability (Errors and Omissions) insurance for the project.

Training programs such as INSTALL (International Standards & Training Alliance), CFI (International Certified Floorcovering Installers Association), and Flooring American University are recommended. If this is your first ReadyRazzo® Tiles installation—or if more than one year has passed since successfully installing at least 500 square feet—contact Summit International Flooring at 1-877-496-3566 to review installation requirements prior to proceeding.

These instructions are designed to ensure a successful installation. Any deviation may result in failure. All installation instructions, Safety Data Sheets (SDS), and product label directions must be read, fully understood, and strictly followed. For conditions not covered in this document, contact Summit International Flooring before proceeding.

Unless otherwise noted, follow ASTM F710 – *Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring*. Visit www.astm.org for access to ASTM standards.

The General Contractor (or Owner) is responsible for providing a structurally sound subfloor. New concrete slabs must conform to ASTM C33/C33M – *Standard Specification for Concrete Aggregate*. If Alkali Silica Reaction (ASR) is present or suspected, do not proceed—contact Summit International Flooring immediately.

All on- and below-grade concrete subfloors must include a confirmed, effective vapor retarder. The vapor retarder must have a permeance of ≤ 0.1 , a minimum thickness of 10 mils, or meet ASTM E1745 – *Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs*. Verify that it is installed directly beneath the concrete slab and above the granular fill. If this cannot be confirmed, a topical moisture mitigation system meeting ASTM F3010 – *Standard Practice for Two-Component Resin-Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings* must be used, following the manufacturer's written instructions.

Note: These systems typically require a leveling compound to create an absorptive (porous) substrate. Do not use chemical adhesive removers. Do not install in areas subject to hydrostatic pressure. Concrete subfloors must be stable and free from shrinkage, curling, cracking, or movement. Summit International Flooring accepts no liability for failures related to slab movement.

ReadyRazzo® Tiles may be installed over radiant-heated slabs, provided the surface temperature does not exceed 85°F under any conditions. The radiant heating system must be turned off or reduced for at least 48 hours prior to installation to allow proper adhesive bonding. Maintain a minimum ambient temperature of 65°F for at least 48 hours before installation, during installation, and for 72 hours after installation.

After installation, gradually increase the radiant heat so that both the substrate and flooring acclimate together. Rapid temperature changes may cause thermal shock and lead to bond failure.

IMPORTANT:

ReadyRazzo® Tiles must be sealed immediately after installation to prevent staining. Refer to Section 10: Priming/Sealing and Finishing.

2) INSTALLATION TOOLS CHECKLIST

Ensure the tools checklist is reviewed prior to any training and/or installation, and that all required equipment is available in advance.

Note: The complete tool list may vary depending on the installation type and selected finish. The items below represent the minimum requirements for most installations.

Personal Protective Equipment (PPE)

- dust mask, gloves, safety glasses, booties, protective suit, etc.

Surface Prep & Cleaning

- Mop and bucket with wringer
- Wet/dry vacuum (dry vacuum must meet HEPA requirements per OSHA silica standards, Table 1)
- White cotton rags and mineral spirits
- Microfiber flat mops
- Polyethylene sheets
- Fox tail / rat tail brush
- Stand-up squeegee
- Large trash bags

Cutting & Fabrication Tools

- Wet saw or dry saw with appropriate HEPA vacuum attachment
- Angle grinder with wet or dry cutting kit and HEPA vacuum attachment
- Continuous-rim diamond blade
- Cap snips
- Razor scraper with blades
- Hammer, utility knife, and blades

Installation and Layout Tools

- 100 lb. floor roller
- Hand roller and wall roller
- 1/16" square notch adhesive trowels
- Suction cups for lifting tiles
- Heat gun
- Green FROGTAPE
- 10' and 8' straight edges
- Mobile (folding) workbench
- Extension cords

Finishing & Caulking

- Variable speed hand polisher (Metabo or Alpha) for edge polishing
- Lint-free microfiber roller
- Color-coordinated silicone caulk
- Caulking gun

3) MOISTURE TESTING AND ADHESIVE

Moisture testing is mandatory and must be performed in accordance with ASTM F2170 – *Standard Test Method for Determining Relative Humidity in Concrete Slabs Using in situ Probes*, regardless of slab age or grade level.

The General Contractor or End User is responsible for ensuring the subfloor is tested. The Flooring Contractor must request and review moisture test results prior to installation, or perform the testing independently.

The Wagner Rapid RH® 4.0 system is recommended for accurate, certified results when installed at the proper depth. If results are in question, testing should be conducted by an International Concrete Repair Institute (ICRI) Tier 2 Certified Technician.

If drilling into the subfloor is not possible, contact Summit International Flooring for guidance before proceeding.

Moisture test results must not exceed the maximum relative humidity limits specified for the adhesive. If results exceed acceptable levels, installation must not proceed until:

- The subfloor dries to within acceptable limits, or
- An appropriate moisture mitigation system is installed in accordance with ASTM F3010 and the manufacturer's written instructions

All test methods, results, and supporting photographs must be documented and provided to the flooring contractor, general contractor, owner, and/or architect prior to installation. Installation may proceed only after acceptable ASTM F2170 results are confirmed.

Approved Adhesives

Always follow the adhesive manufacturer's written instructions and Safety Data Sheets (SDS).

Mapei Ultrabond ECO 373 or ECO MS4

- ASTM F2170: ≤ 90% RH
- Coverage: ~125–185 sq ft per gallon
- Trowel: 1/16" x 1/16" x 1/16" square notch

Additional Requirements:

- pH testing is required. Do not install if pH exceeds 12
- If performing a calcium chloride test (ASTM F1869), do not install if moisture vapor emission rate exceeds 8 lb per 24hrs

4) HANDLING AND STORAGE

If packaging is damaged upon delivery, photograph the damage and note it on the shipping documents before signing. Immediately notify the shipper and Summit International Flooring.

Handle ReadyRazzo® Tiles with care. Tiles may crack or break if mishandled. Do not install any material that is distorted, damaged, or otherwise compromised during shipping or storage.

Summit International Flooring takes care to inspect and label all materials prior to shipment. However, it is the responsibility of the Flooring Contractor to inspect all products before installation. Do not install incorrect materials, visibly defective products, or materials with damage. Installation of any product constitutes acceptance, and warranty claims will not be honored for materials installed with visible defects or incorrect specifications.

Upon delivery to the project site, remove tiles from pallets immediately and place them in a properly conditioned area. Do not stack pallets.

ReadyRazzo® Tiles are flexible and will conform to the substrate beneath them, requiring careful handling and storage. Stack tiles with the walking surface facing upward in piles no greater than 3 inches high. Store on a hard, smooth surface, ensuring tiles remain flat and parallel. Tiles must acclimate in this manner for a minimum of 72 hours prior to installation.

Protect all materials and maintenance products from extreme temperatures during storage, including conditions commonly found in trailers or storage containers.

If materials must remain on pallets for more than 45 days prior to installation, they may require reconditioning. Contact Summit International Flooring for guidance before proceeding.

5) SITE CONDITIONS

Areas must be fully enclosed, weather-tight, and maintained under stable environmental conditions prior to, during, and after installation.

Maintain a consistent service temperature of 60°F to 80°F ($\pm 5^\circ\text{F}$) and an ambient relative humidity between 35% and 65% for:

- At least 72 hours prior to installation
- Throughout the installation process
- A minimum of 96 hours after installation

The substrate temperature must be at least 5°F above the dew point at all times.

Example: If ambient conditions are 70°F and 65% relative humidity, the dew point is 57°F. The substrate temperature must therefore be at least 62°F before proceeding.

Dew point calculators are available online to verify conditions prior to installation. If temporary or supplemental climate control systems are used instead of permanent HVAC, they must maintain consistent temperature and humidity within the required ranges for the specified duration.

Do not use fans or other methods to force dry adhesives or patching compounds, as this may lead to improper curing and bond failure. Always follow the adhesive manufacturer's instructions for proper application and curing conditions.

6) SUBSTRATE PREPARATION

The substrate must be properly prepared prior to installation. When cleaning, use only dustless vacuum systems to remove all dirt and debris.

6.1) Concrete Subfloors

All concrete subfloors must be absorptive, permanently dry, clean, smooth, and structurally sound, in accordance with ASTM F710 – *Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring*.

Concrete must be free of dust, solvents, paint, wax, oil, grease, asphalt, old adhesives, and any contaminants that may interfere with adhesion or void the warranty. These materials must be removed by mechanical means only.

Dustless diamond grinding is a recommended method, as it removes contaminants while smoothing the surface. All dry grinding must comply with OSHA silica standards (Table 1).

Subfloor Absorption Requirement

The substrate must be **absorptive (porous)** when using Mapei Ultrabond ECO 373 or ECO MS4 adhesive.

Water Droplet Test:

- Apply a dime-sized drop of clean water to the prepared surface
- The water must absorb within 15 minutes to be considered porous

If the substrate is non-absorptive (e.g., polished or burnished), it must be mechanically prepared to open the surface. Acceptable methods include:

- Shot blasting
- Diamond grinding
- Diamabrush concrete prep tool (25 or 100 grit)

All methods must include proper dust control systems.

Surface Flatness & Repair

ReadyRazzo® Tiles are flexible and will conform to the substrate. Any irregularities will telegraph through the finished surface.

The substrate must meet the following requirements:

- Smooth and ridge-free
- Flat within $\leq 1/8$ " over 10 feet

All irregularities must be repaired using a commercial-grade self-leveling or patching compound with:

- Minimum compressive strength of ≥ 3000 psi
- Minimum application thickness of $1/8$ "
- Full manufacturer warranty for the intended use and site conditions

Follow all manufacturer instructions for mixing, priming, and application. Once cured, sand the surface smooth (36 grit or similar) and clean thoroughly.

Joints and Cracks

- Do **not** cover or fill expansion or moving joints
- Use an appropriate expansion joint system where required
- Dormant control joints and cracks must be:
 - Cleaned of all debris and contaminants
 - Filled with a suitable patching or leveling compound
 - Finished smooth in accordance with manufacturer instructions

Adhesive Test (Working Time)

Prior to installation, perform an adhesive test in a non-critical area (to be removed later).

- Apply approximately 1 sq ft of adhesive using the specified trowel
- Monitor and record the adhesive working time

On porous substrates, tiles may be installed into semi-wet adhesive. The working time begins once the adhesive becomes dry-to-the-touch and remains usable for approximately 2 hours, depending on site conditions.

This test determines:

- Proper adhesive behavior
- Optimal working time
- Appropriate installation area size per spread

Installers must adjust workflow accordingly to maintain proper bonding conditions.

Safety & Compliance Warning

Follow all local, state, and federal regulations. Do not sand, dry sweep, dry scrape, drill, saw, shot-blast, or otherwise mechanically disturb existing resilient flooring, backing, lining felt, asphalt "cutback" adhesive, or similar materials, as they may contain asbestos fibers and/or crystalline silica.

Avoid creating airborne dust, as inhalation is a known health hazard. If materials are not confirmed to be asbestos-free, they must be treated as asbestos-containing and handled in accordance with all applicable regulations.

Refer to the Resilient Floor Covering Institute (RFCI) guidelines, "*Recommended Work Practices for Removal of Resilient Floor Coverings*" (www.rfci.com), and OSHA silica regulations (www.osha.gov/silica/) for additional information.

6.2) Other Substrates

For all non-concrete substrates, contact Summit International Flooring Customer Service prior to installation for project-specific guidance, potential site review, and preparation requirements.

7) LAYOUT

The material layout should be determined by the architect, designer, or end user. ReadyRazzo® Tiles (2' x 2') are typically installed point-to-point, while panels (2' x 4') are generally installed in a brick-bond pattern.

Establish starting lines using a string line, straight edge, and the 3:4:5 method to ensure square layout. Plan the layout carefully to avoid small perimeter cuts.

ReadyRazzo® Tiles are a natural product, and each tile is individually cast—no two tiles are identical. For this reason, tiles must be dry laid in sequenced courses prior to installation to evaluate visual consistency. Step back and review the layout to ensure a smooth visual transition between tiles. Tiles may be rotated, repositioned, or used as perimeter cuts as needed to achieve a balanced and uniform appearance.

It is recommended that the specifier and/or end user review and approve the layout before proceeding with installation.

8) INSTALLATION

Once the substrate is properly prepared, the installation area must remain clean and free of traffic or interference from other trades. Use only dustless vacuum systems to remove debris prior to installation.

Tiles may be cut using a wet or dry saw, or an angle grinder with an appropriate wet or dry cutting kit and continuous-rim diamond blade. Dry cutting is often preferred, as it avoids introducing moisture and eliminates the need to dry tiles before installation. **Note:** Do not use conventional tile cutters.

For butt-joint installations, begin from the center of the room using established start lines. In corridors or smaller spaces, installation may proceed lengthwise from one end using the start line as a guide. Install tiles tightly against adjacent tiles with no gaps; however, maintain a 1/16" gap at vertical obstructions such as walls, columns, and door frames.

Before installing each row, dry lay a three-tile-wide section along the full length of the row to verify visual consistency between adjacent tiles. Once approved, stack tiles in order and position them near the starting point to maintain sequence during installation.

Apply Mapei Ultrabond ECO 373 adhesive evenly using a 1/16" x 1/16" x 1/16" square notch trowel, ensuring full coverage without puddles or voids. Avoid sharp turns with the trowel, as this can create uneven adhesive distribution and lead to bond failure.

After achieving the proper adhesive condition (as determined during adhesive testing), place tiles into the adhesive bed. Immediately roll each tile using a 100 lb. roller in both north–south and east–west directions. Continue rolling previous rows along with the current row until each area has been rolled at least three times in each direction.

ReadyRazzo® Tiles installed with butt joints must not be wet polished.

9) CLEANING PRIOR TO FINISHING

Remove all surface soil, debris, sand, and grit by sweeping, dust mopping, or vacuuming. Clean the floor using a neutral pH (7) detergent, such as Hillyard Super Shine All or equivalent, following the manufacturer's dilution and application instructions. Apply using a mop and bucket with minimal solution—do not saturate the floor.

Scrub the surface with a single-disc machine or automatic scrubber using an appropriate pad (red or white, depending on soil level). Remove the resulting slurry using a vacuum or wet vacuum, then rinse thoroughly with clean water and allow the floor to dry completely before proceeding.

10) PRIMING/SEALING AND FINISHING

Once installation is complete and the floor has been cleaned in accordance with Section 9, **a sealer must be applied immediately**. ReadyRazzo® Tiles are porous and can stain easily if left unsealed.

Apply five (5) coats of Diverzey Plaza Plus using a roller, allowing 15–20 minutes drying time between coats. The sealer must be fully applied before the floor is exposed to any foot traffic.

11) ADDITIONAL INFORMATION

Because the majority of dirt in a building is tracked in from outside, installing and maintaining entrance matting is strongly recommended at all exterior entry points. For primary entrances, 20–30 linear feet of matting is recommended; smaller or less frequently used entrances may require less. Proper matting improves indoor air quality, reduces maintenance costs, and extends the life of the flooring.

To prevent surface damage, all furniture that may move across the floor must be fitted with protective glides at least 1 inch in diameter. Heavy objects such as equipment, appliances, fixtures, and large furniture must not be moved directly across the floor; use protective boards or similar measures to prevent damage.

Direct sunlight may cause UV-related fading or discoloration. To minimize this risk, specify Low-E glass that reduces UV transmission to less than 1%. If adequate UV protection is not already in place, apply a protective window film such as 3M™ (or equivalent) to achieve similar performance. Follow the manufacturer's recommendations for selection and installation.

These instructions supersede any verbal or written guidance from representatives and must be followed for warranty coverage to remain valid.