

**INTRODUCTION**

These instructions are written as a guide to be used by professional installers when installing Tarkett products. These instructions, combined with our adhesives and flooring products, create a system. Utilizing this system will ease the installation process and provide the customer with a completed product that will perform to its intended purpose. Always visit [www.tarketthospitality.com](http://www.tarketthospitality.com) for the most current installation and maintenance instructions. Technical videos and tip sheets are also available. Contact Tarkett Technical Services at (800)-899-8916 with any questions.

**HANDLING AND STORAGE**

Tarkett cannot accept responsibility for any loss or damage that may result due to processing or working conditions and/or workmanship outside of our control. Users are advised to confirm the suitability of this product by their own tests.

**NOTE: Tarkett recommends that the installation of new flooring material not be performed until all the other trades have completed their work. Proper precautions must be taken during and after the installation process to avoid damage to the newly installed flooring.**

STORING ALL PRODUCTS & ADHESIVES	PRE-INSTALLATION
Stack cartons squarely on top of one another, do not over stack cartons and protect corners from damage by tow-motors and other traffic. <b>NOTE: Do not flex, bend, or stand cartons on end. Never double stack pallets.</b>	Room temperature must be maintained between 65°F (18.3°C) and 85°F (29.4°C) with ambient relative humidity between 40% and 60% for 48 hours prior to, during the entire installation, and after installation. <b>NOTE: Permanent, operational HVAC systems are highly recommended. If alternate system is utilized, it must provide proper control of both temperature and humidity for the above stated time durations.</b>
Store on a dry, flat, level surface.	Site-conditioning flooring, accessories, and adhesives 48 hours prior to installation. The location selected for site-conditioning must be either the room where the flooring will be installed or have similar ambient temperature and relative humidity readings as the room where the flooring will be installed.
Maintain temperature between 65°F (18.3°C) and 85°F (29.4°C).	In areas exposed to intense or direct sunlight, protect the product by covering the light source during site-conditioning, installation, and adhesive curing periods. If exposure to intense or direct sunlight will continue after the installation and adhesive curing period, refer to adhesive chart below.
Maintain relative humidity between 40 – 60%.	Inspect all flooring material to verify accuracy of order as well as for any damage, visual defects, and satisfactory color match. Notify an authorized Tarkett Distributor or Representative prior to installation if any defects are found. <b>NOTE: Tarkett will not pay for labor or material costs claimed on installed materials with visual defects.</b>
Tarkett products are recommended for installation in Indoor, Climate-Controlled spaces only. <b>NOTE: Exposure to excessive UV light can result in fading, degradation, and/or color variation.</b>	

**GENERAL SUBFLOOR PREPARATION**

**An adhesive bond test** must be performed per **ASTM F3311 Standard Practice for Mat Bond Evaluation of Performance and Compatibility for Resilient Flooring System Components Prior to Installation** and using the actual flooring materials and adhesive to be installed. The test areas must be a minimum of 36" x 36" and remain in place for at least 72 hours and then evaluated for bond strength to the substrate.

**A porosity test** must be performed on the substrate to determine which installation method (porous or non-porous) will be required. Refer to **ASTM F3191 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring**

Substrate Construction	Requirements
All Substrates	Permanently dry, clean, smooth, and structurally sound
	The finished substrate must be flat to tolerance as specified. If not otherwise specified, refer to <b>ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring</b> , which requires the substrate to be flat to within the equivalent of 3/16" in 10' (4.75mm in 3.05m) <b>NOTE: Floor preparation is extremely critical to minimize risk of gapping and run-off.</b>
	Free of all dust, loose particles, solvents, paint, grease, oil, wax, alkali, sealing/curing and parting compounds, old adhesive, and any other foreign material, which could affect the installation and adhesive bond to the substrate. All substrate contaminants must be mechanically removed prior to the installation of the flooring <b>DO NOT use liquid solvents or adhesive removers</b> <b>DO NOT use oil-based sweeping compounds</b> <b>NOTE: Permanent and non-permanent markers, pens, crayons, paint, or similar marking tools used to mark the substrate or back of the resilient flooring material will cause migratory staining that is not covered by the warranty.</b>
	Minimum substrate temperature must be 60°F (15.6°C) and must be within 5°F (2.8°C) of ambient temperature

(All Substrates Cont.)	<p>Substrate temperature must be a minimum of 10°F (5.6°C) higher than the dew point temperature  <b>NOTE: Dew point calculators are available online. If the substrate is not 10°F (5.6°C) above the dew point, contact Technical services at (800) 899-8916</b></p>
	<p><b>AT THE TIME OF INSTALLATION: Testing the substrate with a Tramex moisture encounter meter (refer to ASTM F2659) is recommended due to possible issues related to topical moisture from dew point conditions. Substrate surface readings must not exceed 4.0%, if above 4.0%, contact Tarkett Technical Services prior to beginning installation. If these conditions are not properly addressed, the open and working times, bond strength, and setting of the adhesive may be affected.</b></p>
	<p>Fill all depressions, dormant cracks, dormant saw cuts (control joints), and other surface irregularities with a good quality, cement-based underlayment patching compound appropriate for this purpose.</p>
Existing Flooring	<p>Remove all existing, resilient flooring materials and adhesives mechanically prior to installation of Tarkett flooring  <b>NOTE: Refer to the Resilient Floor Covering Institute's (RFCI's) Recommended Work Practices for Removal of Existing Resilient Flooring for best work practices</b>  <b>CAUTION: Some resilient flooring products and adhesives contain "asbestos fibers," and special handling of this material is required.</b></p>
Concrete	<p>Constructed as recommended by the American Concrete Institute's (ACI) 302.2 <i>Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials</i> <b>NOTE: Refer to ACI 302.2 for recommended drying times for newly poured concrete.</b></p>
	<p>Prepared in accordance with <b>ASTM F710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring</b></p>
	<p><b>NOTE: The use of a high moisture and alkali resistant cementitious underlayment may be required. Contact a cementitious underlayment manufacturer for best recommendations.</b></p>
	<p><b>DO NOT install Tarkett flooring over expansion joints.</b> These joints must be respected and should not be filled with products that are not intended for that purpose. Contact an expansion joint cover manufacturer to meet specific substrate conditions.  <b>DO NOT install Tarkett flooring directly over moving cracks or joints in the substrate.</b> Contact a cementitious patch manufacturer to meet specific substrate conditions.</p>
	<p>Test for moisture in accordance with:  <b>ASTM F2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes</b>  <b>-OR-</b>  <b>ASTM F1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.</b></p> <p>Acceptable moisture limits can be found in the adhesive section at the end of this document, on the adhesive label, and in the adhesive specifications found online at <a href="http://www.tarketthospitality.com">www.tarketthospitality.com</a>.  <b>NOTE: Following ASTM F2659 Preliminary Evaluation of Comparative Moisture Condition of Concrete, Gypsum Cement and Other Floor Slabs and Screeds Using a Non-destructive Electronic Moisture Meter can provide qualitative information prior to performing ASTM F2170 or ASTM F1869.</b></p>
	<p>Test for pH in accordance with <b>ASTM F3441 Standard Guide for Measurement of pH Below Resilient Flooring.</b>  Acceptable pH limits can be found in the adhesive section at the end of this document, on the adhesive label, and in the adhesive specifications found online at <a href="http://www.tarketthospitality.com">www.tarketthospitality.com</a>. Test results must not exceed the limits of the adhesive; if they do, the installation must not proceed until the problem has been corrected.</p>
	<p><b>MOISTURE MITIGATION</b>  If the moisture and pH test results exceed the limits of the adhesive, the installation must not proceed until the problem has been corrected. Tarkett does not recommend or warrant any product or procedure for the remediation of high moisture in concrete substrates. There are several companies that manufacture products suitable for moisture remediation.  Tarkett recommends:</p> <ul style="list-style-type: none"> <li>• Contact Moisture Remediation product manufacturer and supply testing results.</li> <li>• Follow the remediation recommendation provided using products that meet <b>ASTM F3010 Standard Practice for Two Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Flooring Systems.</b></li> <li>• Cap the moisture remediation system with a cementitious-based product per the moisture remediation system manufacturer's recommendations for primer, thickness, drying time, etc.</li> <li>• Install Tarkett flooring over the cementitious-based capping product following our standard installation instructions.</li> </ul>

Wood	Underlayment grade plywood that is smooth, free of knots or voids, and a fully sanded face. <b>DO NOT</b> use preservative treated, fire-retardant plywood as these may be manufactured with resins or adhesives that can discolor the flooring <b>NOTE: Do not install over OSB (Oriented Strand Board), particle board, chipboard, lauan, cementitious tile backer boards, or composite type underlayments. DO NOT install over wood floors in direct contact with concrete substrates or installed over sleeper systems.</b>
	Minimum 1" (25.4mm) overall thickness, Double Floor wood construction in compliance with <b>ASTM F1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring</b> <b>NOTE: Single Floor Wood Construction substrates and existing Tongue and Groove strip wood</b> must be covered with an APA approved underlayment plywood. <ul style="list-style-type: none"> <li>For single floor wood construction and strip wood floors with a face width of 3" (76mm) or less, use minimum ¼" (6.4 mm) thick underlayment panels.</li> <li>For strip wood floors with a face width wider than 3" (76mm) face width, use minimum ½" (13mm) thick underlayment panels.</li> </ul>
	Minimum 18" (47cm) of cross-ventilated space between the bottom of joists and ground, and exposed earth spaces must be sealed with a polyethylene moisture barrier
	Meet local and national building codes. Refer to <b>ASTM F1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to receive Resilient Flooring</b> for additional information.
	Countersink nail heads and fill depressions, joints, cracks, gouges, and chipped edges with a good quality, cement based patching compound designed for this purpose
Gypsum	Refer to ASTM F2419 <i>Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring</i> for guidelines when pouring gypsum underlayments or preparing for use as an underlayment under Tarkett flooring. Follow the gypsum underlayment manufacturer's recommendations for proper application and preparation. Refer to the product manufacturers recommendations for sealing and/or priming the finished surface.
	When installing a product with adhesive, the gypsum surface should be capped with a cementitious underlayment. Follow the underlayment manufacturers recommendations for proper application.
Terrazzo & Ceramic	Thoroughly sand to remove all glaze and wax
	Remove or replace all loose tiles and clean the grout lines
	Use a good quality, cement-based leveling compound to fill all grout lines and other depressions
Steel	<b>NOTE: Follow all <u>non-porous</u> installation instructions</b>
	Mechanically abrade to assist with adhesive bond
	Fully clean to remove all dirt, rust, and other contaminates
	Prime with a rust inhibitor
Radiant Heat	Must be embedded <b>in concrete</b> a minimum of 2" below the surface of the substrate
	Check the manufacturer of the radiant heat system to ensure it is safe for use with resilient flooring
	Concrete surface must never exceed 85°F (29.4°C)
	24 hours prior to install, lower the thermostat to a minimum of 65°F (18.3°C). Maintain this temperature throughout installation and for 48 hours after completion
	48 hours after installation, gradually increase the thermostat in increments of 5° every twenty-four hours, never exceeding 85°F (29.4°C)

## INSTALLATION

Tarkett cannot be responsible for issues arising related to the installation of mixed shade lots. Each carton of Tarkett Luxury Vinyl Tile is identified by a SHADE number found on each carton label. It is recommended that the SHADE numbers on each carton match; if multiple SHADE numbers will be used on the same jobsite, it is recommended that they be installed so that different SHADE numbers are not installed side-by-side but separated by natural breaks determined and approved by the owner/end-user or key decision-maker.

1. **Adhesive Application:** See adhesive chart below and follow adhesive label instructions for proper use.
2. **Tile Installation Procedure:**
  - a. Square the area and establish reference points on the substrate. Dry laying of the area may be necessary to ensure that edge tiles are cut to a uniform size on each opposing wall. Use the point of the upper left curve and the bottom left curve of each tile to align on reference points. See Figure 1.
  - b. Apply the adhesive to the substrate and allow proper open time. **Open and working times are dependent on the ambient temperature, humidity, substrate porosity and temperature, and air movement. It is the installer's responsibility to modify the open and working time for jobsite conditions.**
  - c. Use established reference points and install the flooring.

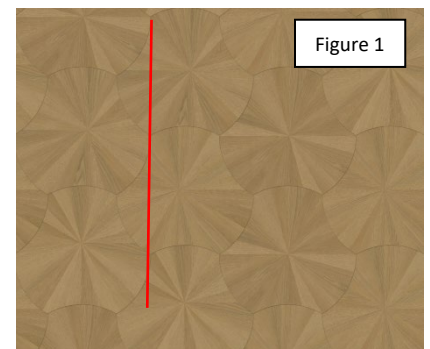


Figure 1

- d. Tiles do not require to be installed in any set direction. Tiles should be lightly butted together when placing the flooring into the adhesive. Do not force tiles together creating a ledge condition at the seams. Sliding tiles will force the adhesive out between the seams.
- e. Periodically, lift the corner of an installed tile to ensure proper transfer of adhesive.
- f. Roll floor in both directions with a 100 pound three-section roller. Use a small hand roller in areas that cannot be reached with a large roller.
- g. Inspect the floor surface, especially seams, and remove any adhesive on the surface.

**3. Post Installation Floor Protection:**

We recommend that the installation of new flooring material must not be performed until all the other trades have completed their work. Proper precautions must be taken during and after the installation process to avoid damage to the newly installed flooring.

**a. Immediately after installation:**

- All traffic must be restricted for a minimum of 24 hours after installation.
- All heavy traffic, rolling loads, pallet jacks, and furniture or appliance placement must be restricted for a minimum of 72 hours after installation.
- Flooring must be swept or vacuumed to remove loose dirt and grit prior to the application of proper floor protection. (Do not trap dirt and grit under floor protection.)
- Apply floor protection suitable for construction foot traffic such as undyed heavy Kraft paper, Ram Board, 1/8" Masonite panels, or similar product designed for resilient floor protection.

**b. 72 hours after installation:**

- Areas that will receive heavy traffic, rolling loads, pallet jacks, and furniture or appliance placement must be protected with 1/4" thick Masonite or similar wood panels.
- The floor must be swept or vacuumed prior to the placement of the floor protection panels. (Lightly damp mop if necessary)

**NOTE: Do not use plastic or other non-porous materials to protect the newly installed flooring that could prevent the adhesive from drying properly.**

**ADHESIVE CLEAN UP**

Excess adhesive should be removed during the installation process.

**959HM High Moisture Subfloor Adhesive**

- Use a clean white cloth dampened with water to remove wet adhesive from floor covering and tools.
- Dried adhesive may require the use of denatured alcohol (methyl hydrate) or 70% isopropyl alcohol applied to a clean white cloth. (Follow manufacturer's precautions when using these chemicals.)

**MAINTENANCE**

1. Wait 72 hours after installation before performing initial cleaning.
2. A regular maintenance program must be started after the initial cleaning.
3. Refer to Tarkett's Maintenance Instructions for complete details.

**ADHESIVE SELECTION CHART**

Only Tarkett adhesives are recommended for use with Tarkett products. When used as recommended, Tarkett adhesives are guaranteed by the limited warranty of the flooring product.

A porosity test must be performed on the substrate to determine which installation method (porous or non-porous) will be required. Refer to **ASTM F3191 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring**

A pH test must be performed in accordance with **ASTM F3441 Standard Guide for Measurement of pH Below Resilient Flooring**.

Products	Adhesive	Application and Coverage		Moisture / pH Limits			Notes	
		Porous	Non-Porous	RH%	CaCl <sub>2</sub>	pH		
LOTUS	959HM High Moisture Substrate Adhesive	1/16 x 1/16 x 1/16 SQ 125-150 sq. ft. per gallon	1/16 x 1/16 x 1/16 V 150 – 175 sq. ft. per gallon	New Concrete	99%	10 lbs.	7-12	The 959HM adhesive is sensitive to substrate porosity. Determine substrate porosity and follow the adhesive label instructions regarding porous and non-porous substrate drying times prior to the installation.
				2+ Year Old Concrete	95%	8 lbs.	7-10	

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