INSTALLATION INSTRUCTIONS

SAFE-T FIRST® STAIRWELL

Stair Treads & Risers

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.tarkett.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.

UL 1994-COMPLIANT PHOTO-LUMINISCENT EGRESS PATH MARKING SYSTEMS,

Listed by Underwriters Laboratories, Inc.

1. Activation: Minimum 1 foot candle (10.8 Lux) of ambient fluorescent lighting per 2012 IBC Section 1024.5 Illumination.
2. Install Safe-T-First photo-luminescent egress path marking systems only in locations where an external illumination source is present, is deemed reliable and whose controls are accessible only to authorized personnel. This reliable illumination source is to be energized at all times during building occupancy.
3. Do not use the system where ambient illumination level is less than 1 foot candle (10.8 Lux).
4. Check with your applicable local or national installation codes such as, IBC-International Building Code, to perform periodic visibility test.

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 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.

<table>
<tr><th>STORING ALL PRODUCTS & ADHESIVES</th><th>PRE-INSTALLATION</th></tr>
<tr><td>Stack cartons squarely on top of one another, do not over stack cartons and protect corners from damage by tow-motors and other traffic.
NOTE: Do not flex, bend, or stand cartons on end. Never double stack pallets.</td><td>Room temperature must be maintained between 65ºF (18.3ºC) and 85ºF (29.4ºC) with ambient relative humidity between 40% and 60% for 48 hours prior to, during the entire installation, and 48 hours after installation.
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.</td></tr>
<tr><td>Store on a dry, flat, level surface.</td><td>Site-condition 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.</td></tr>
<tr><td>Maintain temperature between 65ºF (18.3ºC) and 85ºF (29.4ºC).</td><td>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.</td></tr>
<tr><td>Maintain relative humidity between 40%-70%.</td><td rowspan="2">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. NOTE: Tarkett will not pay labor or material costs claimed on installed materials with visual defects.</td></tr>
<tr><td>Tarkett products are recommended for installation in Indoor, Climate-Controlled spaces only.
NOTE: Exposure to excessive UV light can result in fading, degradation, and/or color variation.</td></tr>
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GENERAL SUBSTRATE PREPERATION

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" piece and remain in place for at least 72 hours and then evaluated for bond strength to the subfloor.

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*

Caution: Do not install stair treads and nosings in areas that are exposed to grease, oil, or animal fats.

Substrate Construction	Requirements
All Staircases	**Caution**: Do not install stair treads in areas that are exposed to grease, oil or animal fats. For these areas, we recommend Tarkett Defiant Oil and Grease Resistant Treads.
	Permanently dry, clean, smooth, and structurally sound
	Minimum substrate temperature must be 60ºF (15.6ºC) and must be within 5ºF (2.8ºC) of ambient temperature
	Substrate temperature must be a minimum of 10ºF (5.6ºC) higher than the dew point temperature **NOTE: Dew point calculators are available online. If your substrate is not 10ºF (5.6ºC) above the dew point, contact Technical Services at (800) 899-8916**

(All Staircases Cont.)	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 **DO NOT use liquid solvents or adhesive removers,** **DO NOT use oil-based sweeping compounds** **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.**
	AT THE TIME OF INSTALLATION: Testing the substrate with a Tramex moisture encounter meter 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.
	Fill all depressions, cracks, and other surface irregularities with a good quality, Portland cement-based underlayment patching compound appropriate for this purpose
Existing Flooring	Remove all existing, resilient flooring materials and adhesives mechanically prior to installation of Tarkett flooring **NOTE: Refer to the Resilient Floor Covering Institute's (RFCI's) *Recommended Work Practices for Removal of Existing Resilient Flooring* for best work practices** **CAUTION: Some resilient flooring products and adhesives contain "asbestos fibers" and special handling of this material is required.**
Concrete	Constructed as recommended by the American Concrete Institute's (ACI) 302.2 *Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials.* **NOTE: Refer to ACI 302.2 for recommended drying times for newly poured concrete.**
	Prepared in accordance with **ASTM F710** *Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring*
	NOTE: The use of a high moisture and alkali resistant cementitious underlayment may be required. Contact a cementitious underlayment manufacturer for best recommendations.
	DO NOT install Tarkett flooring over expansion joints. 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. **DO NOT install Tarkett flooring directly over moving cracks or joints in the substrate.** Contact a cementitious patch manufacturer to meet specific substrate conditions.
	Test for pH in accordance with ASTM **F3441** *Standard Guide for Measurement of pH Below Resilient Flooring.* 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 www.tarkett.com. Test results must not exceed the limits of the adhesive; if they do, the installation must not proceed until the problem has been corrected.
Wood	Underlayment grade plywood that is smooth, free of knots or voids, and a fully sanded face. **DO NOT** use preservative treated, fire-retardant plywood as these may be manufactured with resins or adhesives that can discolor the flooring **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.**
	Meet local and national building codes. Refer to **ASTM F1482** *Standard Practice for Installation and Preparation of Panel Type Underlayments to receive Resilient Flooring* 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 *Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring* 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.
	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 0.5% when measured on the Gypsum settings, if above 0.5%, 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.
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, Portland cement-based leveling compound to fill all grout lines and other depressions
Steel **NOTE: Follow all non-porous installation instructions**	Mechanically abrade to assist with adhesive bond
	Fully clean to remove all dirt, rust, and other contaminates
	Prime with a rust inhibitor

GENERAL INSTALLATION

1. Tarkett recommends that the installation of new stairwell materials 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 stairwell materials.
2. Tarkett Stair Treads, Nosings, Risers, and Stringers are available in convenient lengths and sizes, but normally, trimming will be required to obtain proper fit on each stair. **NOTE: In cases where the staircase is the same width as Tarkett Stair Treads, Nosings, Risers, and Stringers, order the next size up to allow for proper installation.**
3. If the shape of the step does not conform to the shape of the stair nosing, and cannot be altered to conform, then we do not recommend the installation of our products.
4. Trimming on both sides of the tread may be required to obtain proper fit and pattern match to adjacent steps.
5. **Wide staircases,** which require butting multiple lengths of product, will require additional planning and dry fitting prior to adhesive installation to ensure proper pattern alignment.

STAIR TREAD AND RISER INSTALLATION

1. **Fitting the Stair Tread:**
   - **a.** Tarkett Stair Treads and Risers must be trimmed to proper size and dry laid prior to the application of adhesive.
   - **b.** Since each step on a staircase can vary slightly in width, depth, and squareness, Tarkett recommends scribing each tread and riser to ensure proper fit on the step.
   - **c.** Measure the width of the step and place a pencil mark on the step's riser indicating the center of the step. Next, measure the length of the stair tread and mark the center point at the back of the tread where the tread meets the riser.

     NOTE: When installing patterned treads, the same point of the pattern should always fall at the center point of each tread for visual alignment.
   - **d.** To fit the stair tread to the depth of the step, place a 2 x 4 under the nose of the tread and position on step. If the tread is still deeper than the step, use the 4" side of the 2 x 4 or increase the size of the spacer, until the back of the stair tread is away from the riser.
   - **e.** Set the dividers 1/16" wider than the width of the spacer (i.e.: 2 x 4), scribe, and cut the back of the stair tread.
   - **f.** To cut the width, position the stair tread on the step with the right-hand side net to the stringer.
   - **g.** Utilizing a set of dividers, span the needles across the two centerline marks. Increase the measurement by approximately a 1/16" to allow for expansion.
   - **h.** Move to the right-hand side of the step. Place one needle on the stringer and the other on the tread. Start at the back of the tread and pull the dividers forward. Keep the needle firmly in contact with the stringer while exerting adequate downward force to scribe the tread and nose of the material.
   - **i.** Following the scribe line, cut the material with a utility knife.
   - **j.** Reposition the tread on the left-hand side of the step and repeat the same procedure to fit the left side of the tread.
   - **k.** After fitting the stair tread as described above, if the tread has Safe-T Tape strips, cut strips back 1/16" on each side of tread to allow for expansion. After installation of the tread, roll the Safe-T Tape strips to ensure adhesion.
   - **l.** Position the stair tread on the step. There must be approximately 1/16" uniform clearance around the perimeter of the tread for expansion.
2. **Fitting the Riser:**
   - **a.** Following the previous directions for scribing the width of the stair tread, utilize the same centerline mark on the step, position the riser, scribe both sides, and cut.
   - **b.** Set the trimmed stair tread and riser in place. Position the nose of the stair tread over the riser material. Using the edge of the stair tread nose as a guide, scribe a line on the riser material using a pin vice or divider needle. When utilizing an under-scribe tool do not overlap the riser material with the tread nose prior to scribing. Follow the scribe line and cut the riser material with a utility knife to abut the bottom of the stair tread nose when installed. (See Figure above for proper installation)
3. **Fitting One Piece Tread Riser Combination:**
   - **a.** Tarkett recommends installing a CFS-00-A Cove Filler Strip where the tread and riser intersect on the step. The filler strip must be installed prior to trimming the riser. The cove filler strip must be trimmed to fit the width of the stair and installed with Tarkett 946 Premium Contact Adhesive. Apply the adhesive to the back of the cove filler strip and where the tread and riser intersect. Allow the adhesive to dry to the touch. Place cove filler strip in position and roll with a small hand roller
   - **b.** Following the procedures described in **"Fitting the Stair Tread"** above, scribe the tread and riser portions at the same time.
   - **c.** Set the trimmed stair tread and riser in place. Position the nose of the stair tread over the riser. Using the edge of the stair tread nose as a guide, scribe a line on the riser using a pin vice or divider needle. When utilizing an under-scribe tool do not overlap the riser with the tread nose prior to scribing. Follow the scribe line and cut the riser with a utility knife to abut the bottom of the stair tread nose when installed. (See Figure above for proper installation)
4. **Adhesive Application:**

Standard Stair Tread

- **a.** Prior to applying adhesive, wipe the back of the tread and nosing with denatured alcohol (methyl hydrate) or 70% isopropyl alcohol applied to a clean white cloth. to remove any contaminants which may interfere with the adhesive bond. (Follow manufacturer's precautions when using these chemicals.)
- **b.** To adhere the nose of the stair tread directly to the step riser, apply a uniform coat of Tarkett 946 Premium Contact Adhesive to the nosing area of the stair tread and step riser and allow the adhesive to dry to the touch. **The tread nose must be adhered to the step riser. Do not install tread nose over the resilient riser material.**
- **c. Important:** Step surface porosity must be checked to determine if the substrate is porous or non-porous prior to applying 965 adhesive.

d. **For Porous Step Surfaces:** Trowel the 965 adhesive onto the tread portion of the step surface using a 1/16" square-notched trowel. Keep adhesive back 1/2" from the step edge to provide a bonding area for the 930 Epoxy Caulking Compound or 931 Rapid Reaction Epoxy Caulking. Allow the 965 adhesive 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.**

e. **For Non-Porous Step Surfaces:** Trowel the 965 adhesive onto the tread portion of the step surface using a 1/16" V-notch trowel. Keep adhesive back 1/2" from the step edge to provide a bonding area for the 930 Epoxy Caulking Compound or 931 Rapid Reaction Epoxy Caulking. Allow enough open time for the adhesive to partially set and develop body. The stair tread **MUST** be placed into **semi-wet** adhesive to obtain a **complete transfer** of adhesive to the back of the tread which is vital for a successful installation.

f. Gun an adequate amount of Tarkett 930 Two-Part Epoxy Caulking Compound or 931 Rapid Reaction Epoxy Caulking into the nose of the stair tread to completely fill the void between the internal angle of the stair tread and external edge of the stair step. **Caution: Improper application of the caulking compound can interfere with the adhesion of the 965 and 946 adhesives.**

g. Set the stair tread nose into its proper position on the step while lifting the back of the tread slightly to avoid adhesive contact. With the nose is in position lay the tread into place until the nose is tight to the step edge.

h. Make certain that the nosing portion of the stair tread is fit tight against the step nosing. After installation is complete, firmly roll with a small hand roller.

i. **Important:** If adhesive is allowed to remain uncovered, after the initial drying period, for periods longer than 45 minutes, a loss of adhesion strength will occur. Care should be taken by the installer not to spread more adhesive than can be worked within the 45-minute time frame.

Riser Material

a. For riser installations on **porous surfaces**, apply Tarkett 960 Wall Base Adhesive to the ribbed surface (back) of the riser material with a 1/8" square-notched trowel. **The adhesive must cover 80% of the back of the riser material.** Leave a 1/4" (6.35mm) uncovered space at the top of the riser to prevent the adhesive from oozing to the surface of the riser.

b. For riser installations on **non-porous surfaces** (i.e.: metal, epoxy paint, ceramics, etc.) apply Tarkett 946 Premium Contact Adhesive to both the step riser surface and the back of the riser material. Follow the adhesive label instructions for proper use.

c. Position riser and roll with a small hand roller. **NOTE:** Once contact is made to the riser surface, the riser material cannot be repositioned.

One-Piece Tread and Riser Combination

NOTE: Cove Filler Strip must have been installed prior to the fitting process.

a. Prior to applying adhesive, wipe the back tread and nosing with denatured alcohol (methyl hydrate) or 70% isopropyl alcohol to remove any contaminants which may interfere with the adhesive bond. (Follow manufacturer's precautions when using these chemicals.)

b. To adhere the nose of the stair tread directly to the riser, apply a uniform coat of Tarkett 946 Premium Contact Adhesive to the nosing area of the stair tread and riser edge and allow the adhesive to dry to the touch. **Do not install tread nose over the riser material.**

c. **Important:** Step surface porosity must be checked to determine if the substrate is porous or non-porous prior to applying 965 adhesive.

d. **For Porous Step and Riser Surfaces:** Trowel the 965 adhesive onto the tread and riser portions of the step using a 1/16" square-notched trowel. Keep adhesive back 1/2" in both directions of the step edge to provide a bonding area for the 930 Epoxy Caulking Compound or 931 Rapid Reaction Epoxy Caulking. Allow the 965 adhesive 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.**

   NOTE: If step riser is non-porous Tarkett 946 Premium Contact Adhesive must be used. Follow the adhesive label instructions for proper use.

e. **For Non-Porous Step and Riser Surfaces:** Trowel the 965 adhesive onto the tread portion of the step using a 1/16" V-notch trowel. Keep adhesive back 1/2" from the step edge to provide a bonding area for the 930 Epoxy Caulking Compound or 931 Rapid Reaction Epoxy Caulking. Allow enough open time for the adhesive to partially set and develop body. The stair tread **MUST** be placed into **semi-wet** adhesive to obtain a **complete transfer** of adhesive to the back of the tread which is vital for a successful installation.

f. Apply Tarkett 946 Premium Contact Adhesive to both the step riser surface and the back of the riser material. Follow the adhesive label instructions for proper use.

g. Gun an adequate amount of Tarkett 930 Two-Part Epoxy Caulking Compound or 931 Rapid Reaction Epoxy Caulking into the nose of the stair tread to completely fill the void between the internal angle of the stair tread and external edge of the stair step. **Caution: Insufficient application of the caulking compound can result in adhesion loss of the nosing portion of the stair tread to the step surface.**

h. Fold the riser portion of the one-piece unit so that the show surface of the riser is laying on the show surface of the stair tread. Next, position the stair tread into its proper position on the stair, beginning at the nose and pushing back firmly and down as tightly as possible. When installing, lift the back of the tread slightly at the riser until the nose is in position then firmly press the tread portion into place.

i. Lift the riser portion of the unit and install from the bottom up. Apply adequate pressure at the cove filler strip to ensure uniform contact at the base of the riser and then proceed with the riser installation.

j. After installation is complete, firmly roll with a small hand roller. Make certain that the nosing portion of the stair tread is fit tight against the step nosing.

k. **Important:** If adhesive is allowed to remain uncovered, after the initial drying period, for periods longer than 45 minutes, a loss of adhesion strength will occur. Care should be taken by the installer not to spread more adhesive than can be worked within the 45-minute time frame.

5. **Clean up:**

a. Inspect the tread and riser surfaces, remove any excess adhesive.

   Caution: 930 Epoxy Caulking Compound or 931 Rapid Reaction Epoxy Caulking cannot be removed when dried without resulting in damage to the stair tread material.

b. Foot traffic must be restricted for 12 to 24 hours after installation depending on temperature and humidity.

c. Flooring must be swept or vacuumed to remove loose dirt and grit (Lightly damp mop if necessary).

d. All heavy traffic, rolling loads, furniture dollies, etc. must be restricted for a minimum of 72 hours after installation.

ADHESIVE CLEAN UP

Excess adhesive should be removed during the installation process.

946™ Premium Contact Adhesive, 965™ Flooring & Tread Adhesive, 960™ Wall Base 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.)

930™ Epoxy Caulking Compound, 931™ Rapid Reaction Epoxy Caulking

- Before the adhesive sets, remove excess adhesive from flooring and clean tools with denatured alcohol (methyl hydrate) or 70% isopropyl alcohol applied to a clean white cloth. (Follow manufacturer's precautions when using these chemicals.)
- Do not allow adhesive to dry on the flooring surface.
- Removing dried adhesive may cause irreparable damage to the flooring surface.

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%	$CaCl_2$	pH	
Stair Tread	965 Flooring and Tread 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	N/A	N/A	N/A	The 965 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.
Riser Stringer	960 Wall Base Adhesive	1/8 x 1/8 x 1/8 SQ 4" = 200-250 lf. 6" = 100-150 lf. 2.5" = 300-350 lf.	USE 946 PREMIUM CONTACT ADHESIVE	N/A	N/A	N/A	**Porous surfaces ONLY**
Stair Nosings	946 Premium Contact Adhesive	**Applied with Brush or Roller**		N/A	N/A	N/A	The 946 adhesive **MUST** be used to adhere the nose to the riser surface of angled back risers. Coverage based on both sides
		1 qt unit 24 – 36 sq. ft.	1 qt unit 24 – 36 sq. ft.				
		1 gal. unit 144 – 215 sq. ft.	1 gal. unit 144 – 215 sq. ft.				
Stair Nosings	930 Epoxy Caulking Compound or	30-ounce Cartridge 1/4" = 50 lf.	30-ounce Cartridge 1/4" = 50 lf.	N/A	N/A	N/A	
Stair Tread Nose	931 Rapid Reaction Epoxy Caulking	13.5-ounce Dual Cartridge with ¼" Bead = 50 lf.	13.5-ounce Dual Cartridge with ¼" Bead = 50 lf.	N/A	N/A	N/A	Refer to Adhesive Application Section 3.c. for when to use 931.

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