JOHNSONITE RUBBER AND VINYL

Stair Treads, Nosings, Risers, and Stringers

Installation Instructions

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.tarkettna.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 ext. 9297 with any questions.

HANDLING AND STORAGE

1. All Tarkett products must be stored in an indoor, climate controlled space and be protected from the elements. Temperature must be maintained between 65°F (18.3°C) and 85°F (29.4°C) with a relative humidity between 40% and 60%.
2. All cartons must be stored on a dry, flat, level surface. Cartons must be carefully stacked squarely on top of one another and never be stored on edge. Take caution not to over stack the cartons and never double stack pallets. Always protect carton corners from damage by tow-motors and other traffic.
3. Do not flex, bend, or stand stair treads on end.
4. Tarkett flooring and adhesives must be site conditioned at room temperature for 48 hours prior to, during, and after installation. Room temperature must be maintained between 65°F (18.3°C) and 85°F (29.4°C) and the ambient relative humidity must be between 40% and 60%. We strongly recommend the permanent HVAC system be fully operating. **NOTE:** If a system other than the permanent HVAC source is utilized, it must provide proper control of both temperature and humidity to recommended or specific levels for the appropriate time duration as stated above.
5. Once the installation is completed, the service temperature of the space must never fall below 55°F (12.8°C).
6. In areas that are exposed to intense or direct sunlight, the product must be protected during the conditioning, installation, and adhesive curing periods, by covering the light source.
7. Tarkett products are not recommended for exterior use. Exposure to excessive UV rays can result in fading, degradation, and/or color variation.
8. The highest quality of materials and workmanship is employed in the manufacture of Tarkett Flooring and careful inspection is made before shipment. A quality installation is the responsibility of the installer. It is the installer's responsibility to verify the accuracy of the order and to ensure the materials are checked for damage, defects, and satisfactory color match. An authorized Tarkett distributor or Tarkett representative must be notified of any defects before installation proceeds. **Tarkett will not pay for labor or material costs claimed on installed materials with visual defects.**
9. Tarkett cannot accept responsibility for any loss or damage that may result due to processing or working conditions and/or workmanship outside our control.
10. Users are advised to confirm the suitability of this product by their own tests.

GENERAL SUBFLOOR PREPERATION

1. **All staircases** must be permanently dry, clean, smooth, and structurally sound. The surface must be free of all dust, loose particles, solvents, paint, grease, oil, wax, alkali, sealing/curing compounds, old adhesive, and any other foreign material, which could affect the installation and adhesive bond to the substrate. Permanent and non-permanent markers, pens, crayons, paint, or similar marking tools used to mark the substrate or the back of the resilient flooring material will cause migratory staining. Subfloor contamination or markings that bleed through the flooring material causing discoloration or staining are excluded from the Tarkett Limited Warranty. All substrate contaminants must be mechanically removed prior to the installation of the flooring material. **NOTE: Do not use liquid solvents or adhesive removers.**
   Caution: Do not use oil based sweeping compounds.
   Fill all depressions, cracks, and other surface irregularities with a good quality Portland cement based underlayment patching compound appropriate for this purpose.
   Tarkett does not recommend installing over existing resilient floors. All existing flooring and adhesives must be mechanically removed prior to installing the new flooring material – **Do not use chemical adhesive removers or solvents**. Refer to the Resilient Floor Covering Institute (RFCI), *Recommended Work Practices for Removal of Existing Resilient Flooring* for best work practices.
   Caution: Do not install stair treads and nosings in areas that are exposed to grease, oil or animal fats.

   Caution: Some resilient flooring products and adhesives contain "asbestos fibers" and special handling of this material is required.

2. **Concrete staircases** must be constructed as recommended by the American Concrete Institute's ACI 302.2 Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials and prepared in accordance with ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
   Do not install Tarkett flooring over expansion joints, control joints, or other moving joints in the substrate. 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 flooring conditions.
   All concrete subfloors must be tested for moisture and pH (alkalinity):
   Moisture testing must be conducted in accordance with ASTM F 2170 Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using *in situ* Probes or ASTM F 1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. Following ASTM F 2659 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 F 2170 or ASTM F 1869.
   Acceptable moisture limits can be found in the adhesive section below, on the adhesive label, and in the adhesive specifications online. Test results must not exceed the limits of the adhesive.
   If the tests results exceed the limitations, the installation must not proceed until the problem has been corrected. Tarkett does not recommend or warrant any particular product or procedure for the

remediation of high moisture in concrete substrates. There are several companies that manufacture products suitable for moisture remediation. We suggest you refer to the current ASTM F 710 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring and ASTM F 3010 Standard Practice for Two Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Flooring Systems.

A pH test for alkalinity must be conducted. Acceptable pH range of the adhesive can be found in the adhesive section below, on the adhesive label, and in the adhesive specifications online. Results must not exceed the limits of the adhesive. If the test results are not within the acceptable range, the installation must not proceed until the problem has been corrected.

3. **Wood staircases** must be firmly nailed and sanded flat. Countersink nail heads and fill depressions, joints, cracks, gouges, and chipped edges with a good quality Portland cement based patching compound designed for this purpose.

Do not install over OSB (Oriented Strand Board), particle board, chipboard, lauan or composite type underlayments.

4. **Terrazzo and Ceramic staircases** surface must be thoroughly sanded to remove all glaze and waxes. 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.
5. **Steel staircase** surface must be mechanically abraded to assist with the adhesive bond. The staircase must be cleaned to remove all dirt, rust and other contaminants that could affect the adhesive or the bond of the flooring material to the substrate. Surface must be primed with a rust inhibitor. It is important to follow the non-porous installation instructions when installing over metal.
6. **An adhesive bond test** must be performed 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 concrete.

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. Johnsonite 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.
3. If the shape of the step does not conform to the shape of the stair tread or 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.

STRINGER INSTALLATION

1. **Adhesive Application:** See adhesive chart below and follow adhesive label instructions for proper use.
2. **Stringer Installation:**
   - **a.** Stringers are applied to the vertical surface adjacent to the staircase and installed prior to stair treads, nosings, and risers.
   - **b.** Use scribing felt or other appropriate material to make a template of the step stringer. Rough cut the template and use releasable masking tape to affix the template to the step stringer.
   - **c.** Using a carpenters square, dividers or other appropriate tool, transfer the step profile onto the template.
   - **d.** Lay the template over the stringer material and transfer the pattern onto the material. Cut the stringer material and check the fit to the staircase prior to applying the adhesive.
   - **e. If the wall surface is porous,** install stringer utilizing Tarkett 960 Wall Base Adhesive. Follow the directions on the container for proper trowel size and application.
   - **f. If the wall surface is nonporous,** apply Tarkett 946 Premium Contact Adhesive to both the wall surface and the back of the stringer material. Allow the adhesive to thoroughly "dry–to-touch". Carefully position the stringer material on the wall surface. **Caution: Allow the 946 adhesive to dry to the touch with no transfer to the finger. Once the adhesive reaches the "dry-to-touch" state, the stringer must be installed within 45 minutes and immediately rolled.**
     Note: Once contact is made to the wall surface, the stringer material cannot be repositioned.
   - **g.** The stringer must be rolled with a small hand roller to ensure adhesive transfer.
   - **h.** Inspect the stringer surface, remove any excess adhesive.

STAIR TREAD, NOSING, AND RISER INSTALLATION

1. **Adhesive Application:** See adhesive chart below and follow adhesive label instructions for proper use.
2. **Fitting the Stair Tread / Nosing:**
   - **a.** Johnsonite Stair Treads, Nosings, 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/nosing 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. When installing a nosing, extend the centerline mark approximately 4 to 5 inches back from the step nose.
     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/nosing 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 or nosing. 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/nosing on the left hand side of the step and repeat the same procedure to fit the left side of the tread or nosing.
   - **k.** After fitting the stair tread as described above, if the tread has carborundum strips, cut strips back 1/16" on each side of tread to allow for expansion. After installation of the tread, roll the carborundum strips to ensure adhesion.
   - **l.** Position the stair tread/nosing on the step. There must be approximately 1/16" uniform clearance around the perimeter of the tread for expansion.
3. **Fitting the Riser:**
   - **a.** Following the previous directions for scribing the width of the stair tread/nosing, 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)

4. 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 / Nosing"** 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)

5. Adhesive Application:

Standard Stair Tread / Nosing

a. Prior to applying adhesive, wipe the back of the tread and nosing with denatured alcohol to remove any contaminants which may interfere with the adhesive bond. (Follow manufacturer's precautions when using denatured alcohol.)

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. 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. Allow enough open time for the adhesive to partially set and develop body. The stair tread or nosing **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 into the nose of the stair tread/nosing 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.

j. Lift the riser portion of the unit and install from the bottom up.

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 to remove any contaminants which may interfere with the adhesive bond. (Follow manufacturer's precautions when using denatured alcohol.)

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

f. 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. Allow enough open time for the adhesive to partially set and develop body. The stair tread or nosing **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.

g. 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.

h. Gun an adequate amount of Tarkett 930 Two-Part Epoxy Caulking Compound into the nose of the stair tread/nosing 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.**

i. 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.

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.

k. 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.

l. **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.

6. Clean up:

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

b. **Caution:** 930 Epoxy Caulking Compound cannot be removed when dried without resulting in damage to the stair tread/nosing material.

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

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

e. 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.

965 Flooring and Tread 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 applied to a clean white cloth. (Follow manufacturer's precautions when using denatured alcohol.)

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 applied to a clean white cloth. (Follow manufacturer's precautions when using denatured alcohol.)

946 Premium Contact 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 applied to a clean white cloth. (Follow manufacturer's precautions when using denatured alcohol.)

930 Epoxy Caulking Compound

- Before the adhesive sets, remove excess adhesive from flooring and clean tools with denatured alcohol applied to a clean white cloth. (Follow manufacturer's precautions when using denatured alcohol.)
- 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

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	85%	7 lbs.	9	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 Tread Nose Nosing Riser Stringer	946 Premium Contact Adhesive	Applied with Brush or Roller 1 kg (.95 quart) unit 24 – 36 sq. ft. 6 kg (1.44 gallon) unit 144 – 215 sq. ft.	Applied with Brush or Roller 1 kg (.95 quart) unit 24 – 36 sq. ft. 6 kg (1.44 gallon) unit 144 – 215 sq. ft.	80%	5 lbs.	9	The 946 adhesive **MUST** be used to adhere the nose to the riser surface of angled back risers. Coverage based on both sides
Rubber and Vinyl Stair Treads, and Vinyl Nosings	930 Epoxy Caulking Compound	30 ounce Cartridge 1/4" = 50 lf.	30 ounce Cartridge 1/4" = 50 lf.	N/A	N/A	N/A	