

# Johnsonite®

## Safety Stride® Solid Vinyl Floor Tiles

### Installation Instructions

#### Introduction

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Johnsonite Safety Stride Solid Vinyl Floor Tiles are manufactured from a homogeneous composition of polyvinyl chloride (PVC), high quality additives, and colorants to meet the performance and design requirements of ASTM F-1700, Class I (Monolithic), Type B (Embossed Surface) Standard Specification for Solid Vinyl Floor Tile.

The patented “duct and pyramid” surface design exceeds the federal coefficient of friction requirements (ASTM D-2047, James Machine value must be 0.5 or greater as issued by the Federal Trade Commission on March 17, 1953) for a slip-resistant surface and conforms to the A.D.A. coefficient of friction recommendations for accessible ways.

This product has excellent chemical resistance and can be installed in environments where animal fats, vegetable oils, and other petroleum-based materials are present, such as, commercial kitchens, auto oil change facilities, and garages. (**Important:** Johnsonite #975 Two-Part Urethane or #996 Two-Part Epoxy Adhesives must be used to install the tiles in these and other similar types of environments where excessive water or pressure washing of the tiles may be required.)  
**Review local code requirements and site appropriateness for use of raised design tiles in commercial kitchens.**

This highly resilient material is ideal for high-trafficked workplace interiors and public places such as airports, schools, and shopping malls, as well as, other health care, hospitality, retail and office environment applications.

The highest quality of materials and workmanship are employed in the manufacture of Johnsonite Safety Stride Vinyl Floor Tiles and careful inspection is made before shipment. However, a quality installation is the responsibility of the installer. It is the installer's responsibility to verify the accuracy of the order and the materials is checked for damage, defects, and satisfactory color match during the dry laid installation. An authorized Johnsonite distributor or Johnsonite representative shall be notified of any nonconformance before final adhesive application proceeds.

Johnsonite cannot accept any responsibility for the loss or damage that may result from the use of this information, 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. Johnsonite Safety Stride Vinyl Floor Tiles are for interior installations only.

**Caution: In food service areas, do not place hot oven, grill racks, or hot pans exceeding 300°F on the product surface. These items can cause irreparable damage to the product surface.**

#### Handling and Storage

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1. Johnsonite Safety Stride Vinyl Floor Tiles and adhesives must be site conditioned at room temperature for 72 hours prior to, during, and after the installation. **Room temperature must be maintained between 65° and 75°F (18° and 24°C) and relative humidity at 50%.**
2. In rooms 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.
3. **Johnsonite Safety Stride Vinyl Floor Tiles are not recommended for exterior use. Exposure to excessive UV rays can result in fading and/or color variation.**

## General Subfloor Preparations

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1. **All subfloors** must be clean, smooth, and dry. Dust, scale, and loose particles must be removed. The surface must be free of solvents, paint, grease, oil, wax, alkali, sealing/curing compounds, and any other foreign material, which could affect adhesive bonding.

**Do not install** Johnsonite Safety Stride Vinyl Floor Tiles over expansion joints.

2. **Concrete subfloors** must be checked for moisture content. The test shall be in accordance with ASTM F-1869 Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. One test should be conducted for every 1000 sq. ft. of flooring and the results not exceed 3 lbs. per 1000 sq. ft. in 24 hours. If the test results exceed the limitations, the installation must not proceed until the problem has been corrected.

An adhesion bonding test of the actual materials to be installed should be performed, every 1000 sq. ft., utilizing a 12" x 12" piece of tile. The test pieces should remain in place for 72 hours and then evaluated for bond strength to the concrete.

Excessive alkali must be removed by mechanical means. (i.e.: bead blasting, sanding, or grinding).

Fill all depressions, cracks, and other surface irregularities with a good quality cementitious underlayment filler.

3. **Wood subfloors** must have a minimum 18 inches (47 cm) of cross-ventilated space between the bottom of the joist and ground. Exposed earth crawl spaces should be covered with a polyethylene moisture barrier.

Wood joists should be on 16" (41 cm) centers with 1" (2.5 cm) boards installed diagonally and covered with 1/2" (12.7 mm) A.P.A. Approved underlayment plywood. Nail on 4" (10.2 cm) centers around perimeter and across field. Countersink nail heads. Fill all depressions, joints, cracks, gouges, and chipped edges with a good quality latex patching compound and sand entire surface smooth.

**Single Wood and Tongue and Groove** subfloors should be covered with 1/2" (12.7 mm) or 3/4" (19 cm) A.P.A. Approved underlayment plywood.

**Johnsonite does not warranty installations over "particle board" or "chipboard" type underlayments.**

**Johnsonite does not recommend nor warrant vinyl tile installations over existing resilient floors.** All resilient flooring and adhesives must be removed prior to installing the vinyl floor tiles. **Caution:** Some resilient flooring products and adhesives contain "asbestos fibers" and special handling of this material is required.

4. **Terrazzo and Ceramic Floors** - The floor surface must be thoroughly sanded to remove all glaze and waxes. Remove all loose tiles and clean the grout lines. Fill all grout lines and other depressions with a cementitious leveling compound.
5. **Steel staircases** - The surface must be thoroughly cleaned by sandblasting, wire brush or other mechanical means to remove all rust and other contaminants. Paint the surface with an anti-corrosive coating (i.e.: Sherwin Williams "Kromik Metal Primer" or equivalent) to prevent rust from recurring.
6. **Concrete floors equipped with a radiant heating system**, care must be taken that the floor surface temperature does not exceed 85<sup>0</sup> F (30<sup>0</sup> C) during normal operation.

## Safety Stride Vinyl Floor Tile Installation

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1. **Johnsonite Safety Stride Vinyl Floor Tiles must be dry laid prior to adhesive installation.** Start at the center of the room and position the tiles point to point and lay the tiles with the directional arrows, on the back of each tile, running parallel to the adjacent tile. Make all final cuts around room perimeter, alcoves, offsets, and other obstructions.
  2. After the entire floor has been dry laid, view the floor under normal, occupied lighting conditions. **It is the installer's responsibility to inspect the dry laid installation and notify the appropriate authority of any imperfections or irregularities prior to final adhesive installation.**
  3. **Adhesives:** Only Johnsonite's #965 Acrylic, #996 two-part Epoxy and #975 Two-Part Urethane adhesives are approved for installing Johnsonite Safety Stride Vinyl Floor Tiles.
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### **Johnsonite #965 Flooring & Tread Adhesive:** water-resistant adhesive

**Caution:** Johnsonite #965 Acrylic Adhesive is suitable for most installations except where excessive surface water is constantly present or where pressure washing may be part of the routine maintenance program. #965 Acrylic Adhesive is not recommended for use in the following areas: hydrotherapy, swimming pools, showers, commercial kitchens, auto oil change facilities, garages, and similar applications.

**Important:** This adhesive is substrate porosity sensitive. Determine if the substrate is porous or non-porous prior to application of the adhesive and installation of the flooring products and follow the appropriate instructions.

**For Porous Surfaces:** Use a 1/16" square-notched trowel (approx. 125 sq. ft./gal.). After troweling onto the substrate, allow the adhesive to dry or gas-off for 5 to 10 minutes, then install the vinyl floor tiles into the wet adhesive layer and roll with a 100 lb. 3 - section roller immediately after installation and again 1 hour later.

**Non-Porous Substrates:** Use a 1/16" V-notched trowel (Approx. 145 sq. ft./gal.). After troweling onto the substrate, allow the adhesive to dry to the touch with little or no adhesive transfer to the finger. Once the adhesive reaches the "dry to the touch" state, the vinyl floor tiles must be installed within 45 minutes and immediately rolled with a 100 lb. 3 - section roller.

**Important:** If the 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 minutes time frame.

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### **Johnsonite #996 Two-Part Epoxy Adhesive:** water-proof adhesive, for areas that may have excessive surface water exposure

Use a 1/16" square notched trowel (Approx. 150 sq ft/gal). Install tiles immediately after spreading adhesive and roll with a 100 lb. 3 - section roller immediately after installation and again 1 hour later.

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### **Johnsonite #975 Two-Part Urethane Adhesive:** water-proof adhesives, for areas that may have excessive surface water exposure

Use a 1/16" square notched trowel (Approx. 150 sq ft /gal) Install tiles immediately after spreading adhesive and roll with a 100 lb. 3 - section roller immediately after installation and again 1 hour later.

4. Remove wet adhesive at seams or off tile surface with a cloth dampened with rubbing alcohol or water.

**Caution:** Epoxy and Urethane adhesives must be removed when wet. The removal of dried adhesive can result in tile damage.

5. Install the tiles point to point and align the arrows, on the back side of the tile, parallel to the adjacent tiles. Position the tile and butt the edges tightly. Lower the tiles into the adhesive. Sliding the tiles will result in forcing the adhesive out between the seams. Work off the tile surface or use a kneeling board. Periodically, lift the corner of an installed tile to ensure proper transfer of the adhesive.

6. After all tiles have been installed, roll the floor, in both directions, with a 100 lb. 3 – section roller. Roll a second time one hour later. Inspect the floor 2-1/2 hours after installation and roll a third time, if necessary. Use a hand roller in areas which cannot be reached with a large roller. Re-inspect floor surface, especially seams, and remove any adhesive on the surface.

7. Avoid all traffic for at least 12 hours and only limited light traffic for a period of 72 hours after the installation. Do not allow rolling traffic on the floor until after a minimum of 72 hours. Avoid cold or excessive heat, including direct sunlight during this 72 hour period.

8. Johnsonite standard vinyl and rubber coved wall base, Johnsonite TightLock Resilient Wall Base, or Johnsonite Sanitary Butt-to Wall Base products may be used with Safety Stride.

Safety Stride is a weld-able product and can be chemically welded with a vinyl (PVC) sheet flooring welding fluid to Johnsonite Sanitary Butt-to Wall Base to provide a sealed installation.

## **Maintenance**

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72 hours after installation is completed, initial maintenance procedures must be implemented. Refer to Johnsonite Safety Stride Vinyl Floor Tile Maintenance Instructions for complete maintenance instructions.

If questions arise that have not been addressed in the brochure, contact your local Johnsonite distributor for assistance or Johnsonite Customer Service at 1-800-899-8916.

# **Johnsonite®**

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