

# Johnsonite®

## Defiant™ Rubber Floor Tile

### Installation Instructions

#### Handling and Storage

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1. Johnsonite Defiant Rubber 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 no greater than 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 Defiant Rubber Floor Tiles are not recommended for exterior use. Exposure to excessive UV rays can result in fading and/or color variation.
4. The highest quality of materials and workmanship are employed in the manufacture of Johnsonite Defiant Rubber 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.
5. 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.

#### General Subfloor Preparations

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1. **All subfloors** must be clean, smooth, flat to within 1/8" in 10 ft., 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.
2. **Do not install** Johnsonite Defiant Rubber Floor Tiles over expansion joints.
3. **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 good quality cementitious underlayment filler.

4. **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 rubber tile installations over existing resilient floors.** All resilient flooring and adhesives must be removed prior to installing the rubber flooring system.

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

5. **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.
6. **Steel floors** - 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.
7. **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.

## **Rubber Tile Installation**

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1. **Johnsonite Defiant Rubber 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.

**a. Important Exception:** Defiant Prima Marbleized Floor Tiles are normally quarter turned. It is the installer's responsibility to verify the proper orientation and layout with the appropriate authority prior to final adhesive installation.

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. Only Johnsonite's #996 Two-Part Epoxy or #975 Two-Part Urethane adhesives are approved for installing Johnsonite's Rubber Flooring System (**Note:** Johnsonite #965 Acrylic adhesive may be used in areas where oils, grease, animal fats, and topical moisture will not be excessive).

**Caution: #965 Acrylic latex adhesive is substrate porosity sensitive. Determine subfloor porosity and follow the specific label instructions regarding porous and non-porous substrate drying times prior to the installation of the rubber floor tiles.**

4. Apply adhesive to subfloor following adhesive label instructions for mixing directions, trowel recommendations,

and subfloor porosity conditions. 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. (See exception 1.a. above regarding Prima Marbleized and Standard Marbleized Rubber Floor Tiles.)
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. 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 roller traffic on the floor until after a minimum of 72 hours. Avoid cold or excessive heat, including direct sunlight during this 72 hour period.

## **Maintenance**

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72 hours after installation is completed, initial maintenance procedures must be implemented. Refer to Johnsonite Defiant Rubber Floor Tile maintenance instructions for complete details.

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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