

Johnsonite®

Optima and Granit Tile

HOMOGENEOUS TILE

Installation Instructions

Handling and Storage

1. Johnsonite 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° and 85°F (18° and 29°C) with HVAC operating. A minimum temperature of 55°F (13°C) must be maintained afterwards.
2. Johnsonite flooring is not recommended for exterior use. Exposure to excessive UV light may result in fading and/or color variation. 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.
3. The highest quality of materials and workmanship is employed in the manufacture of Johnsonite flooring 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 to ensure the materials are checked for damage, defects, and satisfactory color match. An authorized Johnsonite distributor or Johnsonite representative must be notified of any defects before installation proceeds.
4. Johnsonite cannot accept responsibility for any 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 Preparation

All subfloors must be clean, smooth, flat and dry. 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 installation and adhesive bonding. Fill all depressions, cracks, and other surface irregularities with a good quality cementitious patching compound.

NOTE: Contamination on the substrate can cause damage to the resilient flooring material. Permanent and non-permanent markers, pens, crayons, paint, etc., must not be used to write on the back of the flooring material or used to mark the substrate as they could bleed through and stain the flooring material. If these contaminants are present on the substrate they must be mechanically removed prior to the installation of the flooring material.

Caution: Do not use liquid solvents or removers.

All existing flooring and adhesives must be removed prior to installing the new flooring. Remove existing adhesive mechanically – do not use liquid or chemical adhesive removers or solvents.

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

An adhesive bond test should be performed using the actual materials and adhesive to be installed. The test pieces should remain in place for 72 hours and then evaluated for bond strength to the subfloor.

1. **Concrete subfloors** should be constructed as recommended by the American Concrete Institute's ACI 302.1 R-96 and ASTM F 710.

Do not install Johnsonite flooring over expansion joints.

All concrete subfloors should be tested for moisture, pH (alkalinity), and proper adhesive bond:

Moisture tests shall be conducted in accordance with ASTM F 1869 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride" or ASTM F 2170 "Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs using *in situ* Probes". Three tests should be conducted for areas up to 1,000 sq. ft. and one additional test should be conducted for each additional 1,000 sq. ft. of flooring.

- ◆ Results must not exceed 3 pounds per 1,000 sq. ft. in 24 hours when tested to ASTM F 1869, or exceed 75% when tested to ASTM F 2170.
- ◆ If the tests results exceed the limitations, the installation must not proceed until the problem has been corrected.

It is recommended that alkalinity be tested by using a pH test. Results should range between 7 and 9. If the test results exceed the limitation, the installation must not proceed until the problem has been corrected.

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

Subfloors should meet requirements established by local and national regulations. Trade associations, such as APA – the Engineered Wood Association, offer structural guidelines for meeting various code requirements.

Single Wood or Tongue and Groove subfloors should be covered with 1/2" (12.7 mm) or 3/4" (19 mm) APA approved underlayment plywood.

Countersink fasteners and fill depressions, joints, cracks, gouges, and chipped edges with a good quality cementitious patching compound and sand entire surface smooth for all subfloor panels.

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

3. **Terrazzo and Ceramic floor** surface must be thoroughly sanded to remove all glaze and waxes. Remove or replace all loose tiles and clean the grout lines. Fill all grout lines and other depressions with a cementitious patching compound.
4. **Steel floor** surface must be thoroughly cleaned by sandblasting, wire brush or other mechanical means to remove all rust and other contaminants. Wash the floor with Trisodium Phosphate, apply a primer to the steel floor, and treat the floor as a non-porous floor.
5. **Concrete floors equipped with a radiant heating system**, turn heat down to 65°F (18°C) for at least 48 hours before installation. 48 hours after installation, heat may be returned to operating temperature which is not to exceed 85°F (30°C).

Homogeneous Tile Installation

1. Recommended Adhesive:

- a. For standard application use on porous floors:
Johnsonite 400 Acrylic adhesive, trowel size – 1/32" x 1/16" x 1/32" 'U' notch.
- b. For non-porous floors and application in areas subject to high point loads, topical moisture, or temperature extremes use:
Johnsonite 940 Two-Part Polyurethane, trowel size – 1/32" x 1/16" x 1/32" 'U' notch.

2. Installation Procedure:

- a. Mix tiles from multiple cartons.
- b. Square the room and establish reference points on substrate.
- c. Apply the adhesive to the subfloor. Follow directions on adhesive label for proper adhesive use.
- d. Use established reference points and install the flooring.
- e. Tiles should be quarter turned and lightly butted together when placing the flooring into the adhesive. Do not force tiles together creating a ledge condition at the seams and corners. Sliding tiles will force the adhesive out between the seams.
- f. Work off the flooring when using 940 Two-Part Polyurethane Adhesive.
- g. Periodically, lift the corner of an installed tile to ensure proper transfer of adhesive.
- h. Roll floor in both directions with a 100 lb. three-section roller. Use a hand roller in areas that cannot be reached with a large roller.
- i. Inspect floor surface, especially seams, and remove any adhesive on the surface.

3. **Traffic:**
 - a. No traffic for 24 hours after installation.
 - b. No heavy traffic, rolling loads, or furniture placement for 72 hours after installation.

Adhesive Clean Up

Immediately remove excess adhesive

400 Acrylic Adhesive

- Use water to remove wet adhesive from floor covering and tools
- Dried adhesive may require mineral spirits or denatured alcohol (Follow manufacturer's precautions for mineral spirits and denatured alcohol)

940 Two-Part Polyurethane Adhesive

- Before the adhesive sets, remove excess adhesive from flooring and clean tools with mineral spirits or denatured alcohol applied to a clean white cloth (Follow manufacturer's precautions for mineral spirits and denatured alcohol)
- Do not allow adhesive to dry on the flooring surface

Maintenance

1. Wait at least 72 hours before starting recommended maintenance routine.
2. Refer to Johnsonite's Maintenance Instructions for complete details.
Check Web Site (www.johnsonite.com) for current instructions.

For any questions contact Johnsonite at 1-800-899-8916.

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