

# LINOLEUM SHEET FLOORING Installation Instructions

## Veneto, Etrusco, Toscano, and Veneto Acoustic

## HANDLING AND STORAGE

- Johnsonite Linoleum 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%. A minimum temperature of 55° F must be maintained afterwards.
- 2. Keep material rolled face out on a sturdy core until time of installation.
- 3. Flooring should be stored standing on end and secured to prevent falling.
- 4. 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.
- 5. Johnsonite Linoleum is not recommended for exterior use. Exposure to excessive UV rays can result in fading and/or color variation.
- 6. The highest quality of materials and workmanship is employed in the manufacture of Johnsonite Linoleum 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 during the dry laid installation. An authorized Johnsonite distributor or Johnsonite representative shall be notified of any nonconformance before final adhesive application proceeds.
- 7. 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

- 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 Linoleum over expansion joints.
- 3. All concrete subfloors, old or new, should be tested for moisture, pH (alkalinity), and proper bonding:

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. One test should be conducted for every 1000 sq. ft. of flooring and the results must not exceed 5 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.

It is recommended that alkalinity be tested for using either the pH paper test or the phenolphthalein 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.

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

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 OSB, "particle board" or "chipboard", Lauan or Maranti type underlayments.

Johnsonite does not recommend or warrant Linoleum installations over existing resilient floors. All resilient flooring and adhesives must be removed prior to installing the 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. Wash the floor with Trisodium Phosphate, and then treat the floor as a non-porous floor.
- 7. Concrete floors equipped with a radiant heating system, care must be taken that the floor surface temperature does not exceed 85° F (30° C) during normal operation. During installation lower the radiant heated floor temperature to 65° F (18.3° C) 24 hours before, during and at 48 hours after installation. Heating pipes\element must be at least 2" below the floor surface and in the walls at least 2" above floor level.

•	Adhesive:	Standard application	Porous Floor 450 (Wet Set) Trowel size – 3/32" x 3/32" x 3/32" <u>Non-porous Floor</u> 450 (Wet Set) Trowel size – 1/16" x 1/16" x 1/16"
		Special application: Use for heavy static loads, topical moisture, temperature extremes	940 2 Part Polyurethane (Wet Set) Trowel size – 1/32" x1/16" x 1/32"
•	Rolls:	<ul> <li>Cut only the number of lengths\sheets off the factory rolls that can be installed on the same day.</li> <li>Expansion space must be provided at walls, vertical contact points, and at seams.</li> <li>Install rolls in sequential order.</li> </ul>	
•	Pattern Match:	Do not reverse sheets	
•	Fitting:	Freehand knifing, Direct scribing, or Pattern scribing Do not double cut flooring material.	
•	Seam method:	Underscribe/recess scribe sheet	
•	Factory edge:	Trim approximately $\frac{1}{2}$ " off the factory edge of first sheet. Do not use factory edge to scribe seams. After first sheet is installed, overlap $2^{nd}$ sheet approximately $\frac{1}{2}$ " to 1" then trim	

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		(underscribe/recess scribe) second sheet as soon as possible.	
•	Heat welding seam treatments:	Heat weld seams 24 hours after installation Use coordinated Linoleum rod. Rout at least 3/4 of the depth of the wear layer. Do not rout jute backing.	
•	Treat end or head seams same as side seams:	5 1 6	

## MAINTENANCE and CLEAN UP

- 1. Remove excess adhesive:
  - a. 450 Linoleum Adhesive
    - Use water to remove wet adhesive from floor covering and tools. Dried spots of adhesive should be removed with a fine nylon pad dipped in Johnsonite Neutral Floor Cleaner and water do not use solvents.
    - Traffic may be allowed 48 hours after installation.
    - Allow at least 5 days for adhesive to achieve full bond before commencing recommended maintenance routine.
  - b. 940 2 part Polyurethane:
    - Before the adhesive sets, remove excess adhesive from flooring and clean tools with mineral spirits applied to clean white cloth. Dried adhesive is extremely difficult to remove. Observe cautions for using mineral spirits.
    - Light traffic may be allowed 24 hours after installation. Ready for heavy traffic and furniture movement in 72 hours.
    - Protect from heavy exposure to water and extreme temperature fluctuation for a least 7 days.
- 2. Refer to Johnsonite's Linoleum Floor Maintenance Instructions for complete maintenance instructions.

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



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