# LUXURY VINYL PLANK & TILE INSTALLATION GUIDE

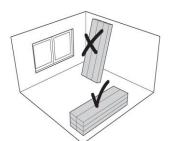
Milliken.

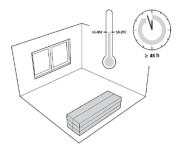
All instructions and recommendations in this guide are based on the most recent information and installation techniques available, please follow this guide to ensure a trouble free and warranty supported installation.

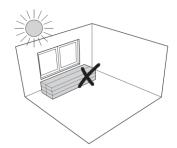
Always check millikenfloors.com for latest installation, warranty and maintenance guides. It is the responsibility of the installer to ensure that the most current documents are used during installation. Contact Milliken Technical support if there are any specific concerns or questions prior to installation

# **Product Handling and Site Conditions**

- 1. Check batch and product details and quantity are correct and match purchase order.
- 2. Store cartons of tile and/or plank with cartons stacked one on top of the other. Do not store on end or sides, or allow cartons to bend during storage or transportation.
- 3. Acclimate product to job site conditions by delivering all materials, including adhesives and maintenance products, to the job site at least 48 hours prior to installation. Store all products at 65° to 85° Fahrenheit (18° to 29° Celsius) for 48 hours prior to installation.
- 4. The space where flooring is to be installed shall be fully enclosed and the permanent HVAC system shall be operational prior to installing flooring. The temperature shall be 65° to 85° Fahrenheit (18° to 29° Celsius) for 48 hours before installation, during installation and for 48 hours after installation. The temperature of the space shall be kept at a minimum of 50° Fahrenheit (10° Celsius) continually after installation.
- 5. To prevent damage to the newly installed flooring the installation of flooring products should be installed after all other trades have completed their work. To further prevent damage after install until space is occupied, use of a reinforced fiber-based temporary floor protector product is strongly recommended.
- 6. To prevent adhesion problems with direct-glue installations, areas to receive resilient flooring shall be permanently dry, clean, smooth, level and structurally sound. They shall be free of all contaminants, including but not limited to: dust, solvents, paint, wax, oil, grease, residual adhesive, adhesive removers, curing, sealing, hardening or parting







compounds, alkaline salts, excessive carbonation or laitance, mold, mildew; any foreign material that might prevent a proper adhesive bond.

- 7. Install flooring perpendicular to direct light sources, including large windows, etc. Use of suitable window coverings during the times of most direct sunlight is recommended.
- 8. Never install LVT outdoors.
- 9. During installation, mix and install planks from several different cartons to minimize shade variation.

# APPROVED SUBSTRATES

The following are approved substrates for installation of Milliken Luxury Vinyl Tile. See the next section for proper testing and substrate preparation prior to installing your Milliken floorcovering.

All substrates regardless of composition must be smooth and flat to within 3/16" (4.76mm) in 10 feet or achieve an "F32" rating by use of mechanical grinding/sanding or suitable Portland cement-based patching and leveling compounds.

- Above, on or below-grade concrete without hydrostatic pressure, excess moisture or alkalinity. Must be fully cured and dry, free from curing compounds, sealers etc.
- Above or on grade lightweight concrete, properly prepared and without hydrostatic pressure, excess moisture or alkalinity
- Above or on grade Gypsum concrete surfaces, properly prepared, sealed and without hydrostatic pressure, excess moisture or alkalinity
- Properly prepared and well bonded existing resilient floor covering
- Cement Terrazzo, ceramic tile, marble see adhesive for proper preparation.
- Certain metal floors see adhesive for proper types and preparation. May require use of a 2-part epoxy; contact Milliken Technical Support for assistance
- Radiant heated floors where heat does not exceed 85°F (29°C)
- APA registered underlayment, sanded face exterior grade with minimum rating of B-C plugged face
- APA registered exterior grade plywood sanded and plugged face with ratings as follows: B-C, or better
- Milliken sound control underlayment

The following are not approved substrates for installing Milliken glue down Luxury Vinyl Tile:

- Epoxy terrazzo
- Rubber, cork or asphalt tiles
- Textured or cushion backed resilient flooring
- "Sleeper" floor systems and other uneven or unstable substrates
- Plywood floors that have been installed directly over a concrete slab
- Luan, OSB, particle or chip boards, CCA (pressure treated), oil treated or other coated plywood

- CDX or other plywood with knots or open defects
- Underlayment made of pine or other soft woods
- Masonite<sup>™</sup> or other hardboard underlayment
- Raised access flooring unless accessibility is not required
- Hardwood flooring
- Uneven or unstable substrates
- Paint, wax, oil, grease, residual adhesive, mold, mildew, and other foreign materials that might prevent adhesive bond

# SUBSTRATE PREPARATION

#### All substrates must be properly prepared and tested according to the following guidelines.

### 1. Concrete Subfloors

- a. Shall be in accordance with the most current version of ASTM F710 Standard Practice for Preparing Concrete to receive Resilient Flooring
- All patching and leveling is to be in accordance with the most current version of ASTM F2678 Standard Practice for Preparing Underlayment's, Thick Poured Gypsum Concrete Underlayment's, Thick Poured Lightweight Cellular Concrete Underlayment's and Concrete Subfloors with Underlayment Patching Compounds to receive Resilient Flooring
- c. Concrete slab construction shall be in accordance to industry standards for specification related to concrete mix design, curing methods and drying times to prevent moisture problems.
- d. On-grade and below-grade slabs should be installed with a suitable vapor retarder directly underneath the concrete slab.
- e. New concrete shall be properly cured and dried prior to the installation of floor covering. Curing agents, surface hardeners and other membranes or compounds shall be mechanically removed immediately after initial cure to allow the slab to properly dry before installation. Approximately 30 days per 1" of slab thickness.
- f. All concrete substrates, regardless of grade or age of slab, must be properly tested using one of the methods outlined below for warranty to apply. Acceptable test methods are ASTM F 1869 Calcium Chloride Test or ASTM F 2170 In Situ Relative Humidity. Testing shall be conducted according to the instructions of the manufacturer of the testing equipment.

#### ASTM F 1869 Calcium Chloride Test

- When using Milliken LVT TPS adhesive, Moisture Vapor Emission Rate (MVER) should not exceed 12 lbs.
  /1,000ft2/24 hours. For Milliken Acousti-Loc LVT adhesive, Moisture Vapor Emission Rate (MVER) should not exceed 10 lbs.
  /1,000ft2/24 hours. Floor covering should not be installed until concrete is sufficiently dry or until corrective measures are taken by the contractor.
- ii Testing should only be done when the test site is at the same temperature and humidity expected during normal use; or at a temperature of 65° 80°F (18° 26° C) and 45% 50% humidity.
- iii A minimum of 3 test areas per the first 1,000 square feet (100 M2) is required, with 1 additional test area for every additional 1,000ft2 (100 M2).

iv The test area shall be clean and free from any contaminants or foreign substances, and shall be exposed in this manner for 24 hours prior to performing the test.

#### ASTM F 2170 In-Situ Relative Humidity Test

- i Relative humidity of the slab shall not exceed 99% when using Milliken LVT TPS Adhesive, and 95% when using Milliken Acousti-Loc LVT adhesive. Floor covering should not be installed until concrete is sufficiently dry or until corrective measures are taken by the contractor.
- II Testing should only be done when the test site is at the same temperature and humidity expected during normal use; or at a temperature of 65° 80°F (18° 26° C) and 45% 50% humidity for minimum 48 hours prior to testing.
- A minimum of 3 test holes for the first 1,000ft2 (100 M2) and one additional test hole for each 1,000ft2 (100 M2) thereafter.
- iv Test holes are to be drilled at a depth of 40% of slab thickness (one-side drying) or 20% of slab thickness (twosides drying).
- V Test holes should be allowed to acclimate for 72 hours prior to insertion of the test probe. Reusable probes should equilibrate at least 1 hour prior to use in the next test area.

#### Concrete Alkalinity / pH Test

- i Testing should only be done when the test site is at the same temperature and humidity expected during normal use; or at a temperature of 65° - 80°F (18° - 26° C) and 45% - 50% humidity for minimum 48 hours prior to testing.
- ii Using distilled water, place drops of water to form a small puddle approximately 1" in diameter.
- iii Wait 60 seconds, then dip a portion of the pH paper into the water.
- iv Acceptable pH levels of the concrete are between 5 and 12 when compared to the color chart provided in the test kit. If higher Milliken Acousti-loc adhesive must be used

#### **Concrete Slab Preparation**

- i Concrete slabs shall be clean and smooth prior to installing floor coverings. Remove all sealers, curing agents and compounds, grease, oil, adhesive removers, old adhesive residue, dirt, paint, etc. to ensure a clean bond surface for the adhesives.
- ii Concrete floors shall be smooth and level to prevent irregularities, roughness or other defects from telegraphing through the new resilient flooring. The surface of the slab shall be flat to within 3/16" in 10 feet.
- iii Uneven areas should be mechanically ground to smoothness.
- iv Cracks, depressions or other similar irregularities should be leveled using a suitable Portland cement based patching compound. Follow the patch manufacturer's instructions regarding mixing and applications.
- V Overly porous, dusty, flaky or soft concrete surfaces are not suitable for resilient floor coverings. It may be necessary to mechanically remove the top layer concrete in such cases and/or these surfaces may need to be primed and covered with a cement based underlayment compound. Follow the patching or leveling compound manufacturer's instructions regarding preparation of the concrete surface, priming, mixing of the product, thickness of application and drying time for resilient floor covering installation.
- vi Expansion joints, isolation joints, control joints or other moving joints in the concrete slab shall not be filled with patching compound or covered with resilient flooring.

## 2. Gypsum and Lightweight Cellular Concrete Substrates

Gypsum and lightweight concrete subfloors and substrates should in accordance with the listed standard. Unprimed gypsum surfaces may have a dusty surface and a very open, porous surface, which will lead to an adhesion bond failure if not properly sealed and treated. It is the responsibility of the installation contractor to obtain verification from the GC, architect, owner or party responsible for the site that the gypsum was properly sealed with the gypsum manufacturer's recommended sealer. If this data is not available, conduct testing according to the appropriate ASTM Test Method for Gypsum Surfaces.

- a. Gypsum surfaces shall be in accordance with and properly prepared to the appropriate ASTM specifications as listed in the above Reference Section
- All patching and levelling is to be in accordance with ASTM F2678 (latest version), Standard Practice for Preparing Panel Underlayment's, Thick Poured Gypsum Concrete Underlayment's and Concrete Subfloors with Underlayment Patching Co to Receive Resilient Flooring Compounds

Conduct a surface porosity test to ensure that the surface is properly sealed. If the water is quickly absorbed, stop the installation and Milliken Technical Services.

- 3. Wood Subfloors
  - a. A combination of wood subfloor and panel underlayment construction shall be a minimum of 1" in total thickness.
  - b. There shall be at least 18" of well-ventilated air space beneath all wood subfloors. Crawl spaces shall be insulated and protected by a suitable vapor barrier.
  - c. Wood subfloors installed directly on concrete or over "sleeper" joist systems are not acceptable for use under Milliken Luxury Vinyl Tile.
  - d. Panels designed as suitable underlayment shall be at a minimum:
    - i. Minimum ¼" in thickness
    - ii. Dimensionally stable
    - iii. Fully sanded face to eliminate grain texture or show through
    - iv. Have a written manufacturer's warranty and installation instructions
    - v. Be free of substances such as ink, fillers and resins which may lead to staining
    - of the resilient flooring
    - vi. Have all knots, voids and defects properly plugged and sanded
  - e. Panels shall be installed according to manufacturer's instructions regarding stapling pattern, sanding and filling of joints, and acclimation to installed environment.
  - f. Milliken will not cover or accept responsibility for the following:
    - i Joint telegraphing, either as a "ridge" or "valley"
    - ii Grain or texture telegraphing
    - iii Discoloration of finished flooring due to materials used for filling of voids and defects in the face of the underlayment
    - iv Use of Luan Plywood underlayment
  - g. Unacceptable substrates shall be covered using a ¼" or thicker panel underlayment recommended for commercial use. Consult underlayment manufacturer for:
    - 1) Recommended uses of product

- Warranty coverage
  Joint spacing
  Nailing or stapling pattern
  Seam treatment
- h. Suitable underlayment panels include Artic (Baltic) Birch, A/C grade plywood with sanded face, or other underlayment grade exterior plywood.
- 4. Existing Resilient Flooring
  - a. When installing Milliken LVT over existing resilient floors, the existing flooring must be:
    - i. Single layer only
    - ii. Thoroughly stripped of all wax, floor finish, dirt and other contaminants that may affect adhesive bond
    - iii. Be firmly bonded to the substrate
    - iv. Flat and smooth with no curling edges or loose seams
    - v. Dry and free from excessive moisture. All concrete floors shall be tested for moisture regardless of age or grade level. Do not assume that an existing floor is free of moisture related issues. Conduct testing per Section 1.d above.
    - vi. Must not be of a cushion back, floating, or perimeter bonded floor

Milliken is not responsible for problems leading to or from indentations, telegraphing of old floor or adhesion release of old floor after the Milliken LVT is installed.

- 5. Old Adhesives
  - a. Adhesive residue shall be properly prepared prior to the installation of Milliken LVT. It is recommended that mechanical scraping or grinding be used as a primary means of removing old adhesive residue.
  - b. Residues include, but are not limited to carpet, vinyl, VCT, and or wood flooring adhesives.
  - C. Black cutback/asphalt adhesives shall be scraped by hand to remove any loose patches, trowel ridges and puddles so that only a thin residue layer remains. This layer shall then be properly covered using a Portland based patching compound properly mixed with the manufacturer's recommended latex/acrylic additive.
  - d. If chemical/liquid adhesive removers are utilized, the manufacturer's recommended instructions for cleaning after use of the remover shall be followed fully. Milliken is not responsible for any adhesive failures, indentation, bubbling, or delamination of new flooring due to improper cleaning of residue left from liquid adhesive removers.
- 6. Other substrates
  - a. Cement terrazzo and metal floors may be suitable for installation and need to be properly prepared for adhesion. Most will need to be prepared with a suitable Portland-based cement patching compound, see manufacturer's recommendations for use and preparation of subfloor.
  - **b**. Ceramic, porcelain, marble and granite tiles are suitable as substrates when the following conditions are met:
    - i. Tiles must be properly bonded with intact grout joints and free of cracks
    - ii. Surface of tile and grout joints should be free from sealers, coatings, dirt and contaminants.

iii. Properly prepare the surface of tiles by grinding any high areas and using a suitable Portland based leveling compound and primer to fill in all low areas. Follow leveling compound manufacturer's recommendations for surface preparation and application of product.

The following are not suitable substrates for installation of Milliken LVT: Rubber, cork, or asphalt tiles; epoxy terrazzo flooring; stained or painted concrete and any other material covered in the sections above and listed as unsuitable.

Unsuitable substrates should be covered with an approved ¼" wood underlayment or suitable Portland-based cement leveler or patching compound. Always follow the manufacturer's recommended practices when covering an existing substrate.

### WARNING!

DO NOT SAND, DRY SWEEP, BEAD BLAST, SHOT BLAST OR USE ANY OTHER MECHANICAL MEANS TO PULVERIZE EXISTING TILE FLOORING, BACKING, LINING FELT, ASPHALTIC "CUT - BACK" OR ANY OTHER ADHESIVES. THESE PRODUCTS MAY CONTAIN ASBESTOS FIBERS AND /OR CRYSTALLINE SILICA. AVOID CRE ATING DUST. INHALATION OF SUCH DUST IS A CANCER AND RE SPIRATORY TRACT HAZARD. SMOKING BY INDIVIDUALS EXPOSED TO ASBESTOS FIBERS GREATLY INCREASES THE RISK OF SERIOUS BODILY HARM. UNLESS POSITIVELY CERTAIN THAT THE PRODUCT IS A NON - ASBE STOS CONTAINING MATERIAL, YOU MUST PRESUME IT CONTAINS

ASBESTOS. REGULATIONS MAY REQUIRE THAT THE MATERIAL BE TESTED TO DETER MINE ASBESTOS CONTENT.

# INSTALLING MILLIKEN LUXURY VINYL PLANK

## 1. General

a. When using more than one carton, make sure that the cartons are all the same dye lot. Different lots may have a variation in color, texture or gloss so they should not be mixed in the same room. Contact Milliken before installing product from differing runs or lots.

b. Milliken plank simulates wood planks, and can be installed in the same pattern as a wood plank floor in a random pattern, staggered design, diagonally or other design.

C. Planks are best in appearance when lying parallel to the longest walls in the room.

d. Milliken products can be cut using a tile cutter or a utility knife. Keep knife blades sharp for easy, accurate and safe cuts. Fit tiles to walls, columns, door jambs, etc. using the same methods other floor tiles; overlap, pattern scribe, wall scribe and free hand.

e. If it is necessary to heat the planks to achieve a cut, heat slightly from the back only with minimal heat setting (a standard hair dryer will produce enough heat). Carefully make cuts with a sharp utility knife on the heated plank.

## 2. Adhesive selection

a. Milliken adhesives are designed to be used on most interior installations over most concrete and wood substrates, and other approved substrates that are properly prepared and leveled.

b. Use of non-Milliken adhesive does not affect Milliken LVT product warranties, however, any claim related to adhesive performance or workmanship and any damage caused by this would be the total responsibility of the party responsible for using the non-recommended product.

**C.** Milliken LVT adhesive is especially formulated to give superior performance with Milliken LVT products. Adhesive should be purchased with the LVT for maximum convenience and lowest total cost.

d. Some commercial applications and special substrates a two-part epoxy or urethane adhesive is recommended. Typical applications for these types of adhesives are wet areas, floors subjected to heavy point loads and/or rolling loads, and floors that will be exposed to extreme temperature changes or extreme temperatures. Contact Milliken for proper adhesives and installation procedures.

### 3. Lay out

a. Determine the center of the room by measuring each end wall and marking the center of the wall. Chalk a line across the points and measure to determine the center point. At a right angle to the chalk line, using the center point, chalk another line out to the other walls.

b. Dry lay a section of tile/plank from the center line to one wall to determine that the pattern is centered and fit. Border cuts and planks along walls should be measured and should not be less than half the width of a plank. If the cut is less than half the width of the installed plank, adjust the first row at the center line to make the centerline match the centerline of the row of planks.

C. Planks should never be less than 9 inches long or less than half of the width of the plank. Avoid small pieces in border areas and adjust the center lines to achieve the proper pattern.

#### 4. Installation of flooring

Spread adhesives using the proper trowel notch. Trowel notch is dependent on the type of subfloor being installed upon; porous substrate or non-porous substrate. Use only the notches shown below for installing the planks. More adhesive is not a good thing with LVT products.

#### a. Porous substrates

- i. To determine if a substrate is porous, sprinkle a few drops of water in the prepared substrate. If the water is absorbed with 2 minutes the substrate should be considered to be porous.
- ii. Examples of porous substrates are wood underlayment panels, APA A/C grade plywood, cementitious underlayment, and many concrete substrates.
- iii. It is recommended that you not work on the freshly installed flooring. This means that you will have to start from the wall or area opposite of an exit, and work towards that exit. Only spread enough adhesive that can be utilized before the initial set or tack. See adhesive container label for approximate times and further instruction.
- iv. Before spreading adhesive, strike a parallel chalk line to the centerline of the length of the room approximately 2' to 3' from the wall. Actual position is to be determined by the layout of the planks, ensure that the pattern is followed from your initial starting point determined in the dry layout performed earlier. If necessary, relay part of the pattern from centerline starting point to determine the exact measurement of the parallel line.

- V. For Porous substrates, spread adhesive with a 1/16" x 1/16" x 1/16" square-notch trowel in an area that can be installed within the working time of the adhesive.
- vi. The adhesive should be allowed to dry to the touch sufficient to prevent slippage. Loss of adhesion can result if the flooring is not installed within the working time of the adhesive.
- vii. Roll the area with a 100lb. roller in both directions immediately after installation.

#### b. Non-porous substrates

- i. If during the test performed above the water is not absorbed into the substrate, this is considered a non-porous installation.
- Examples of non-porous substrates are steel troweled concrete, staircases, terrazzo, ceramic tile, metal, existing fully-adhered non-cushion backed resilient flooring and poured polymeric floors. Be sure you are using the proper adhesive on non-porous substrates.
- iii. For Non-porous substrates, spread adhesive with a 1/16" x 1/32" x 1/32" u-notch trowel in an area that can be installed within the working time of the adhesive.
- iv. Immediately roll the installation with a 100 pound, 3-section roller to ensure proper transfer of adhesive to LV plank backing.

Do not install flooring into wet adhesives on non-porous substrates.

C. After determining the starting point and spreading your adhesive; continue to lay the tile by tightly butting the edges of the plank together, making sure that the runs are parallel to your centerline or layout lines.

**d.** Be sure to stagger all end joints by at least 6" or the width of one plank. If need be, vary the length of your planks during installation to ensure that end joints are not bunched and a randomness is achieved in the pattern.

**e.** If you need to be directly on freshly laid planks, use of a kneeling board is recommended to evenly distribute weight across the planks and keep them from creeping in the wet adhesive.

f. During installation, roll the floor with a 3-section 100 lb. roller to ensure proper transference of adhesive to the plank backing.

g. Tiles can be cut using a vinyl/ VCT tile cutter or using a utility knife with heavy-duty blades by scoring and snapping tiles carefully along the score line. Use a steel straight edge for cutting tile along the length with a utility knife.

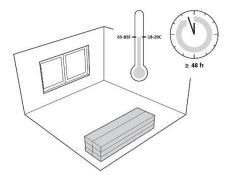
## After Installation

- Be sure planks are set, flat and have tight edges. Re-roll the entire installation, along the length and width of the planks with a 3-section 100 lb. roller to ensure all tiles are properly set into the adhesive. If necessary, weigh down any loose planks overnight to ensure bond. Adhesive can be carefully reactivated using a heat gun after drying to reinstall planks.
- 2. Clean adhesive residue from the face of the flooring following these directions:

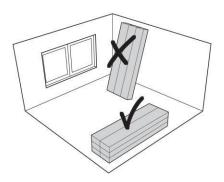
- a. Wet adhesive residue on the surface of the planks can be cleaned with a clean, white cloth dampened with warm, soapy water. Do not use excess water as this can seep between the seams of planks and lead to an adhesion failure!
- b. Dry adhesive residue can be cleaned with mineral spirits or denatured alcohol and a clean cloth in a sparingly manner. Carefully follow the directions on the mineral spirits container. Please note: improper use of any chemical can harm the finish of the LVT.
- c. Do not pour soapy water, mineral spirits or denatured alcohol directly on the LV planks.
- d. If working with epoxy or urethane adhesives you must clean these up while wet according to the adhesive manufacturer's instructions, which can be generally found on the container label.
- Proper rolling of floors during and after installation is a must on Luxury Vinyl products. Use a 3-section, 100 pound roller to set flooring into the adhesives.
- 4. In the event that the plank flooring is not the last portion of the construction project, the floor must be protected from construction traffic and damage. Wait 24 hours and utilize a reinforced fiber protective board or a heavy kraft paper (min. 60 lbs.) and cover the floor. Failure to wait 24 hours before covering can impact adhesive curing.

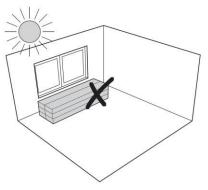
## **IMPORTANT**

Acclimation - Store products at 65° to 85° Fahrenheit (18° to 29° Celsius) for 48 hours prior to installation



Storage – Store cartons flat, do not stand on end. Do not store in direct sunlight





# MILLIKEN ADHESIVES

Milliken adhesives are engineered to be used on a variety of interior installations including most concrete, wood and other approved substrates that are properly prepared.

Use of non-Milliken adhesives does not affect Milliken LVT product warranties, however, any claim related to adhesive performance or workmanship and any damage caused by this would be the total responsibility of the party responsible for using the non-recommended product.

Milliken LVT adhesives are specially formulated to give superior performance with Milliken LVT products. Adhesives should be purchased with the LVT for maximum convenience and lowest total cost.

# Transitional Pressure Sensitive Adhesive (TPS)



- One part cross-linking technology
- VOC Compliant Solvent free
- Non Flammable Low odor
- Freeze/thaw stable
- Easy troweling
- Use over porous & non-porous surfaces
- Excellent working/open time
- Easy cleanup when wet
- Plasticizer migration resistant
- Water resistant

#### COVERAGE

Porous Substrates	up to <b>200</b> ft <sup>2</sup> per gal.	1/16" x 1/16" x 1/16" Sq. notch
		(1.6mm x 1.6mm x 1.6mm Sq. notch)
Non-Porous Substrates	up to <b>250</b> ft <sup>2</sup> per gal.	1/16" x 1/32" x 1/32" U notch
		(1.6mm x 0.8mm x 0.8mm U notch)

#### BENEFITS

- Trowel on for use as a permanent adhesive for both glue down and Free Lay LVT
- Up to 99% RH
- pH: between 5-12
- Calcium Chloride-12lbs/1,000 square feet

#### AVAILABILITY

One and Four-gallon pails



Customer Concierge 800.824.2246 | millikenfloors.com © 2016 Milliken & Company | Made in the USA



# Acousti-Loc<sup>™</sup>

MBA® moisture barrier & sound reduction multi-functional adhesive



- Replaces Epoxies & Urethanes
- 100% Solids, Self-Leveling, Patented Technology
- One Component, No Mixing Required
- Isocyanate, Water and Solvent Free
- Wet Set Installation Over Non-porous Surfaces
- Meets IIC & STC Building Code Requirements for Sound Reduction
- Crack Isolation upto 1/8" wide
- Bis-Phenol A (BPA) Free
- Very Low Odor, Easy Surface Cleanup
- Rapid Cure to High Strength Water Proof Bond

## COVERAGE

Porous Substrates	up to 200 ft <sup>2</sup> per gal.

Non-Porous Substrates up to 250 ft<sup>2</sup> per gal.



#### BENEFITS

- Multi-functional adhesive
- · Removes need for 2 part adhesives or epoxies
- · Combats top down moisture
- Use for heavy static/rolling loads
- IIC & STC ratings of 63 & 62
- Up to 95% RH

- pH: No limit
- Calcium Chloride—10lbs/1,000 square feet
- Plasticizer Migration Resistant
- Non Hazardous per OSHA Reg. 29CFR 1910.1200
- Approved Over Old Cutback Residue
- Enhances Thermal Insulating Properties

## AVAILABILITY

Two-gallon pails

Milliken.

# LVT Installation Methods

# 12" x 24"



+ + + + -Monolithic





-Brick Ashlar



→ → | t | t 1 - n n п



Basketweave





Tile Half Drop

n Herringbone

+ + + - - - -Half Drop



Brick Ashlar

-



Random

18" x 18"



Monolithic



Quarter Turn



Brick Ashlar

# Planks



Herringbone



Traditional