

# TEKNOFLOR<sup>®</sup>

## INSTALLATION & MAINTENANCE GUIDE

10.2.19

Note: This document supersedes all printed and electronic Installation and Technical Guides previously distributed for Teknoflor Vinyl Tile with Setagrip™ Technology.

## INTRODUCTION

The information in this document provides general guidelines, you can review the Teknoflor LVT with Setagrip Technology Installation Instructions at [teknoflor.com](http://teknoflor.com) flooring products. It is important to avoid problems from the outset. If you are unsure of any information provided in this document or are having a problem with your installation, please stop your work and contact Teknoflor Customer Service for additional guidance.

Customer Service can be reached at [orders@teknoflor.com](mailto:orders@teknoflor.com) or 800-522-9166, Monday through Friday, 9:00 a.m. to 5:00 p.m. CST.

Teknoflor LVT with Setagrip Technology is a new generation of high-performance, self-adhering flooring products. Requiring no adhesives, flooring with SETAGRIP technology is quick and easy to install and has no unpleasant odor.

## GENERAL INFORMATION

Preparation is the key to a successful and trouble-free installation. Do not install SETAGRIP flooring without first performing an on-site evaluation (including jobsite testing), ensuring that subfloor preparations are finished, and that the work of all other trades has been completed. Site conditions must comply with the information provided within this document. Additional subfloor preparation guidance can be found in ASTM F710, "How to Prepare Concrete Substrates to Receive Resilient Flooring," ASTM F1482 "Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring" as well as relevant building codes, and local, state and national regulations.

- SETAGRIP™ Luxury Vinyl Tile and Plank products are 4.0mm gauge, are micro-beveled and can be installed with products of similar thickness to provide a transition-free installation.
- SETAGRIP™ offers a self-adhering backing technology that bonds to any smooth non-porous surface. The SETAGRIP™ technology provides a secure yet releasable bond that is ideal for fast-turnaround renovations. The releasable nature of SETAGRIP™ allows for quick and easy repair.
- SETAGRIP™ is intended for climate controlled interior use environments only and is suitable for above, on and below-grade applications. SETAGRIP™ is not recommended for exterior installations or for use in areas that are not climate-controlled.
- SETAGRIP™ is recommended for use over existing floors, properly prepared concrete, suspended wood, metal and other smooth

non-porous substrates. If your flooring does not meet the non-porous requirement, we require application of TEK Max, a primer-sealer that creates a non-porous finish while also addressing moisture issues.

- Acclimation: SETAGRIP™ should be installed in climate-controlled structures consistently maintained at temperatures between 65°-85°F (18°-29°C) and 35%-65% RH with a slab surface of at least 65°F (18°C). Acclimation is achieved when the flooring and subfloor are at a consistent and stable temperature that is within 3°F (1°C) of each other.
- SETAGRIP™ can be walked on and furniture reinstallation can begin as soon as installation is completed.
- Floor Flatness: The surface shall be flat to 3/16 inch in 10 ft. (3.9mm in 3m) and 1/32 inch in 12 inches (0.8 mm in 305 mm). Level high spots by sanding, grinding, etc. and fill low spots. Smooth surface to prevent any irregularities or roughness from telegraphing through the new flooring.
- Allow other finishing trades, especially the overhead and wall trades, to complete their work before beginning the floor installation.
- During spackling, painting or pipe cutting, cover the substrate to prevent surface contamination. Spackling, permanent marker, paint, paint thinner or machine oil and other construction trade items that contaminate the substrate can cause bond failure or product discoloration.
- Close working spaces to all non-essential traffic before installation and until the installation is completed. After installation, the Flooring Contractor, General Contractor or property owner shall protect the installed flooring from construction damage from other trades until the space is turned over.
- Provide good overhead lighting for proper subfloor preparation and installation. Poor lighting is no excuse for improper workmanship or installation of visible defects.
- After patching, sand the surface to remove all ridges. Rework any remaining low spots or surface defects. Vacuum the entire surface paying close attention to the perimeter to remove all dust and debris. Most floor patching materials that do not use a latex additive will be porous and require priming.
- Porous and/or dusty structurally sound substrates shall be primed by applying one or more coats of TEK Max, a primer-sealer which creates a non-porous dust-free surface while addressing moisture issues.

All warranties and guarantees pertaining to the suitability and performance of any preparation or ancillary product rests with that material manufacturer or the Flooring Contractor and NOT with NUFLORES™. The condition of the subfloor and bond issues resulting from improper subfloor preparation and/or the use of incorrectly prepared sealers, embossing levelers, patches, concrete, gypsum-based products and other such items are the sole responsibility of the Flooring Contractor, General Contractor, and/or manufacturer of the particular products.

**WARNING: ASBESTOS & SILICA** - Various Federal, State, and Local government agencies have regulations governing the removal of in-place asbestos-containing material. If you contemplate the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable regulations. Do not sand, dry sweep, dry scrape, drill, saw, bead blast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalt "cut-back" adhesive, or other adhesive. These products may contain asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of bodily harm. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content. RFCI's Recommended Work Practices for Removal of Resilient Floor Covering are a defined set of instructions addressed to the task of removing all resilient floor covering structures. For further information, visit the Resilient Floor Covering Institute website at [www.rfci.com](http://www.rfci.com).

**CHEMICAL ABATEMENT:** NUFLORES™ does not recommend the use of solvent adhesive removers (inorganic or bio-based) or chemically abating an existing floor covering or adhesive. Adhesive removers can remain in the slab, under walls and within cracks and cause failure of the new floor covering after installation. For removal of all flooring and adhesives, follow the resilient flooring removal procedure as detailed in the RFCI's Recommended Workplace Practices for Removal of Resilient Floor Coverings.

### **JOBSITE INSPECTION AND TESTING**

Prior to installation, plan and attend an on-site construction meeting with the General Contractor, Architect, and Property Owner to review all requirements and inspect site conditions as outlined in this document as well as those outlined

in ASTM F710, ASTM F1482 and relevant building codes, and local, state or national regulations. Flooring installation should not begin until all site conditions have been assessed, testing has been completed, the subfloor has been prepared, and all conditions are in compliance. Defects should be addressed immediately and corrected before installing SETAGRIP™ Flooring. Installation of material constitutes acceptance of all conditions.

1. The building must be completely sealed before jobsite testing can begin (ASTM F710). This includes: windows, doors, roofing, walls, etc.
2. Interior environmental conditions must be maintained at 65°-85°F (18°-29°C) and 35%-65% RH a minimum of 48 hours before testing, and at all times during testing (ASTM F710).
3. Moisture Testing: Perform one or more of the moisture evaluation methods listed to determine the moisture levels of the subfloor.

### **CONCRETE SUBFLOORS**

- A. Electronic Moisture Meter: Using a Tramex Concrete Moisture Encounter Meter, Check the moisture level of the surface of the concrete slab. The moisture limit is 4.0%.
- B. Mat Test (ASTM D4263): Duct tape 2 ft. x 2 ft. pieces of plastic sheet down to the surface of the concrete making sure the edges are completely secure. After 24 hours, peel back the plastic. The limit is darkness and dampness but no water drops. Any beads of water on the slab or on the plastic are not acceptable.
- C. Calcium Chloride Test (ASTM F1869): Place the calcium chloride tests as specified in the current ASTM F1869. The maximum limit is 8.0 lbs. MVER.
- D. In-Situ Relative Humidity (RH) Test (ASTM F2170): Place the RH probes as specified in the current ASTM F2170. The maximum limit is 90.0% RH.
- E. Alkalinity testing is not required.

### **WOOD SUBFLOORS**

- A. Pin Wood Moisture Meter: Wood substrates must be checked with a calibrated pin moisture meter. Readings between the subfloor / structural wood and underlayment panels must be within 3.0% and be less than 14.0% moisture content.

**ATTENTION:** Mold and mildew grow only in the presence of moisture. Jobsite mold and moisture issues must be addressed and corrected prior to installation. Please visit [www.epa.gov/mold](http://www.epa.gov/mold) for information about safely preventing and removing mold, mildew and other biological pollutants.

4. Plan, prepare, and protect the substrate moisture test-sites for the duration of the testing in order to achieve valid results.

5. Subfloor flatness for all substrates shall not exceed 3/16 inch in 10 ft. (3.9mm in 3m) and 1/32 inch in 12 inches (0.8 mm in 305 mm).

## ACCLIMATION

- Acclimate the SETAGRIP™ flooring, jobsite and subfloor in the area to be installed to a stable and consistent temperature between 65°-85°F (18°-29°C) with ambient relative humidity between 35%-65% RH . The key is to condition the flooring materials and jobsite environment to closely match the facilities operational environmental conditions. Achieve and maintain the stable and consistent temperature for a minimum of 24 hours before, during and continuously after installation. Check the subfloor surface and flooring materials and confirm all are at the same temperature (no more than 3°F difference) before and during the entire installation.
- Stable acclimation of materials and substrate usually takes a minimum of 24 hours to accomplish and may take up to 72 hours or longer, depending on storage and jobsite environmental conditions. Check for consistent and stable temperature of the flooring materials and subfloor surface before and throughout the installation process.
- Stack plank and tile flooring no more than 5 cartons high. Space all flooring at least 6 inches apart for acclimation.
- Radiant heated subfloors must be turned off 2 days before installation until 2 days after installation and temperature maintained with supplemental heat. Gradually bring the temperature up 2°F (1°C) per day until reaching normal operating temperature. Radiant heated subfloors shall not exceed 85°F (29°C) under any mode of operation.
- After installation maintain a consistent operational temperature and RH for optimal flooring performance. The minimum floor surface temperature should not go below 60°F (16°C).

## SUITABLE SUBFLOORS

SETAGRIP™ flooring products may be installed over properly prepared, fully bonded and intact existing hard surface flooring as well as properly prepared concrete, suspended wood and metal subfloors. All substrates must be properly prepared and meeting the requirements listed in this SETAGRIP™ Installation Instructions, ASTM F710 and ASTM F1482 and have a non-porous surface. Porous surfaces can be addressed with the use of

Tek-Max, our primer-sealer. Consult with substrate preparation material supplier for appropriate material selections, application requirements, and warranty information. The responsibility of the assessment, determination, and selection of the substrate preparation material, along with application and product performance rests with the applicator and preparation material provider.

Suitable substrates include:

- Concrete (all grades)
  - Double layer suspended wood
  - Ceramic tile and Terrazzo
  - Steel and Aluminum
  - Single layer, non-cushion sheet vinyl/LVT/VCT
  - Polymeric Poured Floors
  - Must meet applicable building code requirements
- 
- Proper subfloor testing and preparation is critical to achieve a beautiful and lasting installation.
  - Polymeric, resinous or seamless poured floors may be installed over, but great care must be taken in determining substrate suitability. It is difficult to confirm if they are well bonded to the substrate and they are prone to moisture related issues especially when covered with an impervious surface.
  - Existing flooring must have all loose or damaged areas removed. Floor finish or polish should remain but be cleaned. Once the damaged areas are removed and the surface is thoroughly clean, prepare the surface by leveling and smoothing with an appropriate patching compound. Glazed, polished, smooth or dense surfaces should be checked for surface bonding characteristics, and may need to be primed if the surface is porous. In addition, surface preparation materials may require the use of a primer or bonding agent to mechanically key to the surface prior to application.
  - Metal Substrates must be completely clean, dry and free of rust, dirt, wax, marker, paint, grease or any other deleterious contaminants that may act as a bond breaker or staining agent. Degrease using an appropriate heavy-duty degreasing cleaner. Mineral Spirits may be necessary to remove grease and/or oil contaminants. Always perform a bond test prior to installation. Metal substrates are non-porous and should provide a good bonding surface. Lead is very soft and will easily dent and deform. Lead and all soft metal substrates are recommended to be coated over with a 1/8 inch or thicker layer of patch or self-leveling underlayment to stabilize the surface. Follow patch manufacturers recommendations for proper application.
  - SETAGRIP™ may be installed over existing non-cushioned single layer resilient flooring only on

suspended or on-grade installations, but not below grade. Repair all loose and damaged areas, smooth the surface using an appropriate floor patching and smoothing product. Once all smoothing and leveling has been completed, sweep or vacuum the surface to remove all loose dust and debris.

- Thick pour Gypsum-based Underlayments must be manufactured and installed in compliance with ASTM F2419 “Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayments and Preparation of the Surface to Receive Resilient Flooring.” Test and evaluate thick pour underlayment moisture in accordance with underlayment manufacturer’s recommendations. All thick pour gypsum underlayments require TEK Max Primer-Sealer be applied to the surface before product application.
- Radiant heated subfloors must not exceed 85°F (29°C) under any condition of use.

**CAUTION:** TEKNOFLOR does not recommend the use of solvent adhesive removers (inorganic or bio-based) or chemically abating an existing floor covering or adhesive. Adhesive removers can remain in the slab, under walls and within cracks and cause failure of the new floor covering after installation. For removal of all flooring and adhesives, follow the resilient flooring removal procedure as detailed in the RFCI’s “Recommended Workplace Practices for Removal of Resilient Floor Coverings”.

## CONCRETE SLABS AND UNDERLAYMENTS

- New and existing concrete slabs shall be in compliance with current:
    - ASTM International
      - ASTM F 710 “Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring
    - American Concrete Institute (ACI)
      - ACI 302.1 Guide to Concrete Floor and Slab Construction
      - ACI 302.2 Guide for Concrete Slabs to Receive Moisture Sensitive Flooring Materials
    - Local and National building codes
  - Concrete surfaces to receive resilient flooring shall be suitable for intended use, permanently dry, clean, smooth, and structurally sound. They shall be free of dust, solvent, paint, wax, oil, grease, residual adhesive, adhesive removers, curing, sealing, hardening, or parting compounds, alkaline salts, excessive carbonation or laitance, mold, mildew, and other foreign or deleterious contaminants that may act as a bond breaker or staining agent (ASTM F 710).
  - Concrete slabs shall have a minimum 3,500 psi cured compressive strength and be designed and placed with water-cement ratio of 0.45 to 0.5 which is recommended by the concrete construction industry and appropriate for slabs to receive moisture sensitive finishes. Higher water-cement ratios lead to longer dry times and issues associated with elevated moisture conditions that cause floor failures (ACI 302.1 & ACI 302.2).
  - Coal Fly Ash is used as recycled content replacing Portland cement in concrete slabs. It is becoming more prevalent with the popularity in sustainable LEED construction practices. Fly ash contains silicon dioxide and calcium oxide. Silicon dioxide are spherical particles with an extremely smooth surface. Calcium oxide is a caustic, highly alkaline component which also acts as a bond breaker. Always perform a bond test prior to installation. If poor bond performance is identified, apply TEK Max to prime to the surface and retest. Document your testing and evaluation.
  - Concrete slabs on or below grade must be installed directly over properly installed and intact vapor retarder that complies with ASTM E1745 “Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill Under Concrete Slabs.” On or below grade concrete slabs shall be free from hydrostatic pressure, excessive moisture or any other deleterious condition.
  - Concrete Slabs should be wet cured using plastic sheeting or other suitable moisture retaining cover. Do not use curing compounds as these slow the slab dry time and can act as a bond breaker if not removed.
  - Perform moisture testing as outlined in Jobsite Inspection and Testing on Page 3.
  - Power troweled concrete surfaces can be very smooth, non-absorbent and develop surface laitance. These surface conditions generally provide a good bonding surface for SETAGRIP™, but may adversely affect bond of floor preparation materials. If a highly power troweled surface requires smoothing and patching, the surface should be mechanically prepared by grinding or shot blasting to improve bond of the preparation materials.
  - Remove all curing compounds that might prevent proper bonding or proper moisture testing. Sand or mechanically abrade the surface to ensure 100% removal of any curing compounds.
  - Use high quality Portland cement and or calcium aluminate based patching and leveling compounds recommended by their manufacturer for use conditions. The underlayment shall be mold, mildew and alkali resistant, non-shrinking and water-resistant with a minimum 3,500 psi cured compressive strength.
- There are many options for moisture mitigation systems that may be beneficial to resolve elevated

moisture conditions. We recommend TEK Max as it both mitigates moisture issues and creates a non-porous surface for the adherence of SETAGRIP™. Please reference TEK Max documents to see installation instructions and moisture maximums.

**SURFACE IRREGULARITIES:** Cracks, grooves, depressions, control joints, or other non-moving joints, and other irregularities shall be filled or smoothed with high-quality Portland cement or calcium aluminate based patching or underlayment compound for filling or smoothing, or both. Some surface cracks may need to be chased and filled. Patching or underlayment compound shall be moisture, mildew, and alkali-resistant, and shall provide a minimum of 3,500 psi compressive strength after 28 days, when tested in accordance with Test Method ASTM C109 or ASTM Test Method C472, whichever is appropriate. Refer to manufacturer’s instructions of such subfloor preparation materials for more details.

**PATCHING AND SELF-LEVELING:** For concrete subfloors, use only high- quality Portland cement calcium aluminate, or synthetic, gypsum-based materials (minimum 3,500 psi compressive strength per ASTM C109), and allow to dry according to manufacturer’s instructions. Self-leveling compounds may have very high moisture content, thus requiring longer curing times. Note: Adding latex to levelers will normally make the floor NON-POROUS which may eliminate the need for priming the surface. Follow the manufacturer’s instructions, and do not over-water patching and leveling compounds. The installer is responsible for observing cure times, moisture content, bonding ability, and the structural integrity of any leveling or patch compound used.

**WARNING:** Do not lightly skim-coat highly polished or slick, power- troweled concrete surfaces. A thin film skim coat of floor patch will not bond sufficiently to a slick subfloor and may become a bond breaker, causing tiles to release at the interface of the subfloor and patching material. Most highly polished or slick, power troweled concrete surfaces are non-porous and SETAGRIP™ will bond well directly to that surface.

**EXPANSION JOINTS / ISOLATION JOINTS:** Such joints (or other moving joints) are incorporated into concrete floor slabs in order to permit movement without causing random cracks in the concrete. These joints must be honored and not be filled with underlayment products or other materials, and floor coverings must not be laid over them. Expansion joint covering systems should be detailed by the architect or engineer, and based upon intended usage and aesthetic considerations.

MANUFACTURER	WEB ADDRESS	PHONE NUMBER
Balco USA	<a href="http://www.balcousa.com">www.balcousa.com</a>	(800) 767-0082
C-S Group	<a href="http://www.c-sgroup.com">www.c-sgroup.com</a>	(800) 233-8493
EM Seal Joint Systems	<a href="http://www.emseal.com">www.emseal.com</a>	(800) 526-8365
InPro Corp	<a href="http://www.inprocorp.com">www.inprocorp.com</a>	(800) 222-5556
MM Systems	<a href="http://www.mmsystemscorp.com">www.mmsystemscorp.com</a>	(800) 241-3460
Nystrom	<a href="http://www.nystrom.com">www.nystrom.com</a>	(800) 547-2635
Watson Bowman Acme	<a href="http://www.wbacorp.com">www.wbacorp.com</a>	(800) 677-4922

## WOOD SUBFLOORS & UNDERLAYMENTS

All suspended wood subfloors shall have standard, double-layer construction with a minimum total thickness of at least 1" (25mm). As a finish layer, use minimum ¼" (6mm) thick, APA-rated “underlayment grade” plywood with a fully sanded face, or other underlayment panel that is appropriate and warranted for the intended use by the panel manufacturer. Follow manufacturer’s instructions for acclimation, installation and surface preparation. Prime all wood substrates using TEK Max before installation. All substrates must meet national and local building code requirements.

- Do not install over wood floors in direct contact with the earth, concrete slab, over a sleeper floor assembly.
- The double layer wood subfloor shall incorporate an APA Underlayment Grade top layer such as Multi-Ply® or TEKPLY® that is designed for the intended use meeting the following requirements:

- Minimum ¼ inch (5.5 mm) thickness
- Sanded face free of knots or roughness to prevent any surface telegraphing
- Solid core free of voids to resist indentations and punctures from concentrated loads
- Designed for resilient flooring use and free of any substance that may stain vinyl
- Moisture content less than 14.0% and panel layers within 3.0% of each other
- Confirm panel moisture level by checking in several areas using a calibrated pin moisture meter
- Compliant with APA or manufacturer recommended as “Underlayment Grade” for resilient flooring

- Do not install directly over Lauan, pine or other soft woods, particle board, hardboard, hardwood flooring, treated wood or underlayment panels with core voids, face knots or rough surface or any underlayment that is not recommended by its manufacturer for the intended use and for use beneath resilient flooring. Cover these and other unacceptable wood based surfaces with ¼ inch or thicker underlayment grade panel in compliance with all underlayment requirements listed in this guide.

- Do not install with coated fasteners.
- Underlayment panels shall be stored, acclimated, prepared and installed in accordance with the current manufacturer's published instructions and or current APA Underlayment Installation Guidelines and or ASTM F1482 "Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring". Follow instructions paying close attention to proper acclimation, subfloor flatness, panel spacing, nailing or staple schedule and seam treatment.
- After underlayment panel installation, sand uneven edges and areas where patch was used to provide a smooth level surface.
- Prime all non-finished wood surfaces using TEK Max before installation.
- Just before installation thoroughly vacuum the surface paying close attention to the perimeter and under drywall to remove all dust and debris.
- Once the underlayment is properly installed, dry, smooth, and flat, clean and primed in compliance with all specifications, proceed with installation.

## PRE-INSTALLATION

**BOND TESTING:** The prepared surface must be checked for proper bonding prior to beginning the installation. Take a small piece of SETAGRIP™ flooring and remove the release liner. Place the backing against the prepared surface and step on the piece of flooring. If the flooring is well adhered to the surface and remains well adhered for more than 20 seconds, the surface is non-porous and ready to install. If the subfloor surface is concrete and not primed, check multiple locations throughout the jobsite. Also, randomly check the surface bond during installation.

Ensure all necessary tools and equipment roller needed including having a 75lb roller on hand and in good working order. Bring sufficient spare blades and any other consumable items or supplies to complete project. It is critical that all cutting blades are sharp and smooth. Confirm all sundry items and floor covering materials are on-site and make sure the flooring materials are the correct color, style and quantity for each dye lot. Check flooring for any visible issues or defects BEFORE installation. Installation of flooring covering implies acceptance of substrate and materials.

## INSTALLATION

### GENERAL INFORMATION

Check all material for damage, and verify that the material is the correct color and quantity ordered for each Pattern and Run number(s). Immediately report any discrepancies.

Confirm that all pre-installation requirements have been satisfactorily completed. Start of flooring installation indicates acceptance of current subfloor conditions and full responsibility for completed work.

Always start with a clean jobsite. All trades must finish before installing SETAGRIP™. Carefully inspect each plank or tile for defects prior to installation and do not install damaged material. Be sure to check run numbers prior to installing.

### CHECK RUN NUMBERS

Locate the run number on the carton label and verify that all the material for your job is from the same run. Minor shade variations within the same run number contribute to the natural look of SETAGRIP™. To avoid noticeable shade variations, do not install material from different runs together.

- Ensure that the flooring and jobsite including slab temperatures are acclimated to within 65°-85°F (18°-29°C) and 35%- 65% RH.
- Confirm quantity of flooring is sufficient for area to be installed. Check material for visual defects before installation. Installation of flooring acknowledges acceptance of materials.
- Perform final acceptance inspection of substrate by making sure all surfaces to be covered are completely clean, dry and smooth and that all necessary subfloor preparation has been properly completed and documented.
- Protect adjacent work areas and finished surfaces from damage that could occur during product installation.
- SETAGRIP™ should be the last material installed so as to prevent other trades from disrupting installation and to prevent damage to the new floor.

SETAGRIP™ comes in plank, rectangular, and square tile formats. SETAGRIP™ tiles can be installed block, staggered, or quarter-turned.

SETAGRIP™ plank flooring should have end-joints offset by at least 6" and should be installed in a random, staggered manner, so as to create an appearance that avoids alignment of end-joints (H pattern). SETAGRIP™ can run either

parallel or diagonal to the room or primary wall. The following conditions must be given consideration when determining how SETAGRIP™ will be installed:

Layout: Layout shall be specified by the architect, designer or end user (refer to architectural drawings).

- Establish center lines and determine starting point to balance the installation by having equal tile widths on opposite sides of room. This can be facilitated by measuring or dry-laying tiles and marking baselines.
- When all preparatory work is satisfactorily completed, including dry fitting cut tiles (if applicable), proceed with installation. Inspect each tile for visual defects before installing. Installation of flooring implies acceptance of materials.
- Protect the installed floors from other trades and existing site conditions to deliver to the end user a pristine, undamaged floor.

### SETAGRIP™ RESILIENT TILE INSTALLATION

Tiles can be installed in the same direction in order to provide a more consistent appearance or quarter turned in order to provide a more varied appearance. SETAGRIP™ planks may be installed randomly. This will create a more realistic wood look.

### SQUARE THE ROOM

Square the layout of the room. Measure and mark the center point along one wall. Locate and mark the center point on the opposite wall. Snap a chalk line between these points to mark the center line on the floor. Measure and mark the center point on the center line to find the middle of the room. At the center point, mark off a line across the room at a precise right angle to the first line.

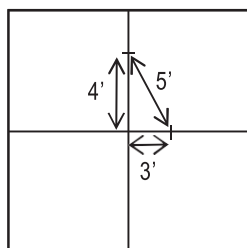


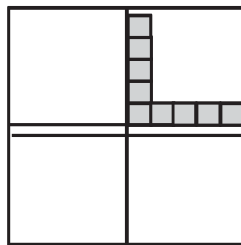
Figure 1

Starting from the center point, make a mark measuring 4 feet vertically and 3 feet horizontally. Connect the marks with a diagonal line to complete the triangle. If the diagonal line does not measure exactly 5 feet, then the center crossing lines are not at a true right angle. (See Figure 1)

TIP: Multiples of the 3-4-5 (6-8-10 or 9-12-15) triangle method may be used for greater accuracy in larger spaces.

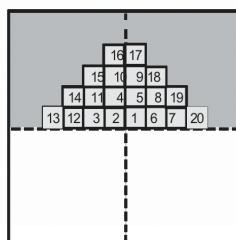
### BALANCE FLOORING TO THE ROOM

Either measure or dry-lay a row of tiles from the center line to the side walls to determine the size of the first and last tiles. If the resulting border is not even or less than 1/2 the width of the tile in either direction, move the row of tiles over until centered left-to-right and top-to-bottom and the border pieces are 1/2 the tile width or greater. Snap new reference lines along the edges of the tile to balance the installation. The new reference line intersection is the starting point.



### INSTALL THE FLOORING

After determining the layout and snapping starting lines, begin to install the tiles at the starting point. Using the stair step method, install the first tile to the right of where the reference lines intersect and the second tile to its left. Secure the tiles by removing the release liner and pressing down on the tile when it is properly aligned to the reference lines. Proceed with installing additional tiles to the left then to the top making sure each tile is aligned edge to edge with the tiles next to it. Once all full tiles are installed, cut perimeter tiles to fit net to the wall. Trim last row of tiles by measuring from one edge of the last full tile to the wall. Mark this distance on the corresponding edge of the tile to be trimmed. Measure the distance from the other edge of the tile to the wall and mark the other edge of the tile to be cut. Use a utility knife and straightedge to trim off the excess edge. For walls that have an uneven edge, it may be necessary to take multiple measurements and transcribe the measurements to the tile to be trimmed to provide a good fit. All flooring must be rolled with a minimum 75 lb. roller after installation. Use a hand roller in areas that cannot be reached with a 75 lb. roller.





## SETAGRIP™ RESILIENT PLANK INSTALLATION

SETAGRIP™ planks may be installed randomly. This will bring out more variety in the appearance of the installed floor.

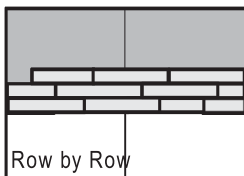
### SQUARE THE ROOM

Square the layout of the room. Measure and mark the center point along one wall. Locate and mark the center point on the opposite wall. Snap a chalk line between these points to mark the center line on the floor. Measure and mark the center point on the center line to find the middle of the room. At the center point, mark off a line across the room at a precise right angle to the first line. Starting from the center point, make a mark measuring 4 feet vertically and 3 feet horizontally. Connect the marks with a diagonal line to complete the triangle. If the diagonal line does not measure exactly 5 feet, then the center crossing lines are not at a true right angle. (See Figure 1 on previous page)

TIP: Multiples of the 3-4-5 (6-8-10 or 9-12-15) triangle method may be used for greater accuracy in larger spaces.

### INSTALL THE FLOORING

After snapping the center starting chalk lines, start laying the planks from the right angle formed by the center lines. Lay the material from the center of the room, working towards the walls as shown. It is imperative that the first row is placed precisely and accurately against the reference line as you install. Make sure each plank is flush against the chalk line and tight and aligned with the adjoining plank Lay row-by-row to the wall.



Once all full width planks are installed, cut perimeter planks to fit net to the wall. Trim last row of planks by measuring from one edge of the last full plank to the wall. Mark this distance on the corresponding edge of the plank to be trimmed. Measure the distance from the other edge of the plank to the wall and mark the other edge of the plank to be cut. Use a utility knife and straightedge to trim off the excess edge. For walls that have an uneven edge, it may be necessary to take multiple measurements and transcribe the measurements to the plank to be trimmed to provide a good fit.

As an alternate for small rooms, dry lay two rows of planks along the longest straight wall. If when dry laid tight together, the wall is straight enough to provide a good fit, proceed with installing the planks starting from the wall.

If, however, the wall is not straight, start the installation from the center line. All flooring must be rolled with a minimum 75 lb. roller after installation. Use a hand roller in areas that cannot be reached with a 75 lb. roller.