Revised January 2024

Before proceeding, visit <u>www.hmtxcommercial.com</u> to obtain and review the current installation guide, maintenance guide and other relevant documentation. This installation guide covers Teknoflor<sup>®</sup> Nature's Tile and Plank flooring. Failure to follow the current installation guidelines and other applicable technical documents may result in unintended installation related issues and void the product warranty.

## MATERIAL RECEIVING, STORAGE & HANDLING

- Upon receipt, immediately remove all shrink wrap from pallet(s) and confirm materials are the correct color, style, and quantity for each dye lot with consecutive roll numbers for sheet goods. Carefully check all materials for shipping damage. Note any damage on bill of lading when signing for delivery. Visible damage not reported on bill of lading to trucking company is your responsibility.
- Immediately report discrepancies to Teknoflor<sup>®</sup> Customer Service at (800) 522-9166.
- Store all flooring products and accessories in a dry interior area maintained between 65°F and 85°F (18°C and 29°C). Using outside temporary storage and other uncontrolled storage locations may result in unintended installation issues including bond failure, shrinkage, etc. and is not covered under the Teknoflor<sup>®</sup> Warranty.
- > Handle materials with care to prevent unintended damage.
- > SHEET FLOORING Once received, unstrap all rolls from pallet and store upright ASAP. This helps prevent distortion and compression.

## JOBSITE EVALUATION & PREPARATION

Proper jobsite evaluation and subfloor preparation are key to a successful installation. Do not install Teknoflor<sup>®</sup>flooring products without performing a thorough jobsite evaluation and until all non-conforming conditions are remedied. Refer to the current ASTM F710 "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring" as well as current relevant American Concrete Institute (ACI) specifications and relevant building codes (www.concrete.org). All subfloors must be tested for moisture and ph. and confirmed within specification and documented before proceeding. It is strongly advised to have moisture testing conducted by an independent ICRI (International Concrete Restoration Institute) certified contractor.

JOBSITE CONDITIONS AND TESTING MUST BE PROPERLY PERFORMED AND DOCUMENTED BEFORE INSTALLATION. CONFIRM PROJECT MEETS ALL PRODUCT AND ADHESIVE REQUIREMENTS AND SPECIFICATIONS PRIOR TO PROCEDING. IN ORDER TO FILE A CLAIM, COMPLETE PROJECT DOCUMENTATION, CLEAR DIGITAL PHOTOGRAPHS OF ISSUE AND SAMPLES OF DEFECT ARE REQUIRED. FAILURE TO PROVIDE ALL REQUIRED DOCUMENTATION MAY VOID WARRANTY.

ALL WARRANTIES AND GUARNATEES PERTAINING TO THE SUITABILITY, PERFORMANCE AND USE OF ALL PREPARATION AND SUNDRY MATERIALS RESTS SOLY WITH EACH PRODUCT MANUFACTURER AND/OR FLOORING AND GENERAL CONTRACTOR AND NOT WITH TEKNOFLOR<sup>®</sup> INC.

ALL PERFORMANCE RELATED ISSUES ARISING FROM OR ATTRIBUTABLE IN ANY WAY TO THE USE OF NON-RECOMMENDED PREPARATION MATERIALS, MOISTURE MITIGATION SYSTEMS, ADHESIVES AND ANY OTHER SUNDRY PRODUCTS OR METHODS ARE THE SOLE AND EXCLUSIVE RESPONSIBILITY OF EACH PRDUCT'S MANUFACTURER AND/OR THE FLOORING AND GENERAL CONTRACTOR OR PARTY WHO APPROVED ITS USE OR PRACTICE.

- Attend jobsite construction meeting with the General Contractor (GC), Architect and Owner to review all requirements and expectations and to inspect site conditions. This provides the best opportunity to fully understand the scope of work, coordinate moisture testing and address subfloor level and flatness concerns, request necessary lighting and coordination with other trades to vacate the space during subfloor preparation and installation. Confirm with all parties present if Flooring Contractor (FC) is expected to provide a "Level" surface in addition to a "Flat and Smooth" surface and determine what concrete additives, curing method and fly ash or other additional components are specified and raise awareness to potential issues before construction.
- > Determining jobsite suitability rests solely with the General Contractor and Flooring Contractor.
- Nature's Tile and Plank are intended for interior use only.
- The building envelope must be enclosed (under roof with walls, windows, and doors etc., installed) with operational HVAC for a minimum of 1 week and preferably 2-3 weeks before starting installation. This is critical to remediate excess moisture from the subfloor and to stabilize the interior environment.
- > Subfloor must be suitable for intended use and rigid, smooth, flat, level & permanently dry, clean & free of all foreign materials,

including, but not limited to, dust, paint, marker, grease, oils, solvents, cutting/parting compounds, sealers and residue from old adhesive or any other deleterious contaminants that may act as a bond breaker or staining agent.

**WARNING:** Do not sand, dry sweep, dry scrape, drill, saw, bead blast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive, or another 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 increases the risk of serious bodily harm. Unless positively certain that the product is 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 Workplace Practices for Removal of Resilient Floor Coverings are a defined set of instructions addressed to the task of removing all resilient floor covering structures.

**CAUTION:** All ink, markers and paint on substrate must be removed by sanding or profiling to prevent bleed through and staining of the sheet flooring. Sealing and/or skim coating is not a substitution for sanding.

- The appearance of the new flooring is only as good as the as your subfloor preparation, surface irregularities will show through the new flooring. Nature's Tile or plank will not hide a uneven or rough subfloor.
- During the evaluation and preparation phase, the flooring installer should identify and grind down high spots, fill-in surface cracks, depressions, stationary control joints or other non-moving joints using high quality Portland based cement and or calcium aluminate based patching and leveling compounds recommended for these condition
- The underlayment shall be mold, mildew, and alkali resistant, non-shrinking and water-resistant with a minimum 3,500 psi cured compressive strength.
- Always follow the patch manufacturer's current instructions, paying attention to proper mix water ratio, working time, drying time and moisture testing.
- Wood subfloors shall be suspended, double layer construction with 18 inches (46 cm) of cross ventilated space beneath having 1 inch (25 mm) minimum total thickness and incorporating a ¼ inch (6 mm) or thicker underlayment grade panel on the surface that is designed for the intended use. Underlayment panels shall be stored, acclimated, and installed in accordance with the current manufacturer's published instructions. Follow instructions, paying close attention to proper acclimation, subfloor flatness, panel spacing, nailing or staple schedule and seam treatment.
- The surface shall be smooth and flat to 3/16 inch in 10 ft. (5 mm in 3 m) and 1/32 inch in 1 ft. (1 mm in 30 cm).
- Moisture and pH testing shall be performed on ALL new and existing concrete slabs and wood subfloors. Moisture testing shall be performed in accordance with applicable test methods:
  - Concrete Slabs
    - PREFERRED ASTM F2170 In-situ Relative Humidity and/or
    - ACCEPTABLE ASTM F1869 Anhydrous Calcium Chloride
  - Suspended Wood Subfloors
    - Calibrated Wood Pin Meter
- > All trades, especially the painting and overhead work, must complete their work before beginning the preparation and installation.
- During taping and the application of drywall compound, painting or pipe cutting, cover the substrate to prevent contamination. Drywall compound, permanent marker, paint, paint thinner or machine oil and other construction trade items that contaminate the substrate can cause bond failure or product discoloration.
- Prohibit all traffic before installation and after installation. After installation, GC shall protect flooring surface from damage from other trades.
- Provide good overhead lighting for proper subfloor preparation and installation.
- After patching, sand the surface to remove all ridges and prep any remaining low spots or surface defects. Vacuum the entire surface, paying close attention to the perimeter to remove all dust and debris.
- Expansion, isolation, and other moving joints are designed and incorporated in concrete slabs to permit movement without causing random cracks. Moving joints shall not be filled or covered with any floor covering. Moving joints must be honored through the flooring and should be treated with an expansion joint covering system as determined though consultation with the expansion joint product manufacturer.

MANUFACTURER	WEB ADDRESS	PHONE NUMBER
Balco USA	www.balcousa.com	(800) 767-0082
C-S Group	www.c-sgroup.com	(800) 233-8493
EM Seal Joint Systems	www.emseal.com	(800) 526-8365
InPro Corp	www.inprocorp.com	(800) 222-5556
MM Systems	www.mmsystemscorp.com	(800) 241-3460

Nystrom	www.nystrom.com	(800) 547-2635
Watson Bowman Acme	www.wbacorp.com	(800) 677-4922

Once all substrate testing and surface preparations are complete and comply with installation and product specifications, continue with the flooring acclimation.

# ACCLIMATION

- Acclimate the flooring, adhesive and subfloor at the jobsite in the area to be installed to a stable and consistent temperature between 65°F and 85°F (18°C and 29°C) and a minimum of 68°F (20°C) for spray adhesives with ambient relative humidity between 35% and 65% RH. The key is to condition the flooring materials, adhesive and jobsite environment to match the facilities operational environmental conditions. Maintain the stable and consistent temperature for a minimum of 48 hours before, during, and for a minimum of 48 hours after installation. Check the subfloor surface, flooring materials and sundries with a temperature gauge and confirm all are at the same temperature (no more than 3°F difference) before and during the entire installation.
- Supplemental Heating: Only suitable temporary HVAC systems should be used, which may include electrical heat or direct- vent heating systems. The use of any propane or kerosene forced-air heaters, any vent-free or ventless heaters, and/or any other type of unvented fuel-burning heating systems is not permitted. Temporary heating must be in constant operation until a permanent HVAC system is fully operational. It is recommended that projects installed while using temporary heating have supporting documentation of the environmental conditions before, during, and after the installation.
- Radiant heated subfloors must be turned off 2 days or longer 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.
- 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.
- After installation, maintain a consistent operational temperature and RH for optimal flooring performance. The minimum floor surface temperature should not go below 55°F (13°C).

# SUITABLE SUBFLOORS for NATURE'S TILE & PLANK.

- Teknoflor<sup>®</sup> recommends the removal of all existing flooring and adhesives and starting any new installation directly to the subfloor as a best practice.
- > This material may be installed over properly prepared concrete and suspended wood subfloors.
- Nature's Tile and Plank may be installed over existing ceramic and quarry tile, stone, terrazzo, polymeric, resinous, or seamless poured floors on suspended or on-grade installations. Flooring Contractor is responsible for 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.
- Glazed, polished, smooth, or dense surfaces must have the surface mechanically abraded. In addition, surface preparation materials may require the use of a primer or bonding agent to mechanically key to the surface prior to application.
- Nature's Tile and Plank may be installed over a properly prepared metal substrate. Metal Substrates must be completely clean, dry, and free of dust, dirt, wax, marker, paint, grease, or any other deleterious contaminants that may be a bond breaker or staining agent. Prior to mechanically abrading the surface, degrease using an appropriate heavy-duty degreasing cleaner. Appropriate chemical may be necessary to remove grease and/or oil contaminants. Always perform a bond test prior to installation. Metal substrates are non- porous and shall be installed using the appropriate adhesive installation method. Lead is very soft and will easily dent and deform. Lead and all soft metal substrates should to be leveled with a ½ inch (3 mm) or thicker layer of patch to stabilize the surface. Follow patch manufacturer's recommendations for proper application.
- Thick-pour gypsum-based underlayment's must be manufactured and installed in compliance with ASTM F2419 "Standard Practice for Installation of Thick Poured Gypsum Concrete Underlayment's and Preparation of the Surface to Receive Resilient Flooring." Test and evaluate thick-pour underlayment moisture in accordance with underlayment manufacturer's recommendations. This underlayment must have a minimum compressive strength of 2000psi for use over wood and 3000psi over concrete. If the density less than 115 per cubic foot, it may not be suitable for resilient products. Consult the Gypsum manufacturer.
- > DO NOT install over subfloors where solvent adhesive-removers have been used or that have been chemically abated.
- Radiant heated subfloors must not exceed 85°F (29°C) under any condition of use.
- Sweeping compounds may contain products which will affect the bond of the adhesive to the substrate. The affected areas need to be profiled and patched.

### CONCRETE SUBSTRATES & UNDERLAYMENTS

> New and existing concrete slabs shall be in compliance with current versions of the following standards, guides, and codes:

- ASTM International
  - ASTM F710 "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring"
    - American Concrete Institute (ACI)
    - ACI 201.2 Guide to Durable Concrete
    - 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 be a bond breaker or staining agent (ASTM F710).
- 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, as 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 used as recycled content and replacing Portland cement in concrete slabs is becoming more prevalent with the popularity in sustainable, LEED construction practices. Fly ash contains silicon dioxide and calcium oxide. Silicon dioxide is composed of spherical particles with extremely smooth surfaces to which it is difficult for adhesives to bond. Calcium oxide is a caustic, highly alkaline component which also acts as a bond breaker. As a result, concrete slabs containing fly ash in higher concentrations are difficult to bond to. Always perform a bond test prior to installation. If poor bond performance is identified, skim coat the surface and perform additional bond tests to determine if non-conformity has been corrected. 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, alkalinity, 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 in accordance with applicable test methods:
  - PREFERRED ASTM F2170 "Standard Test method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes." Confirm results are within RH moisture limits for adhesive.
  - ACCEPTABLE ASTM F1869 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride." Confirm results are within MVER moisture limits for adhesive.
- Determine surface porosity in accordance with ASTM F3191 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring. Place a single 0.05 mL (¼ Inch in diameter) drop of potable water on the surface using a pipette, water dropper, straw, etc. of the concrete and time how long it takes to fully absorb into the concrete surface. It the water drop takes longer than 60 seconds to be fully absorbed, the surface is considered non-porous. Slab absorbency testing should be performed in at least 3 areas for the first 2,000 SF and one additional test for each additional 3,000 SF and no less than one per room on each installation. Slab absorbency and surface texture affect adhesive coverage. Bond testing needs to determine the appropriate trowel to achieve full coverage on the floor backing without having excess adhesive applied. Absorbent (porous) and more textured surfaces require an increase in adhesive application and non-absorbent (non-porous) and smooth surfaces require less adhesive application to achieve proper adhesive coverage.
- Power troweled concrete surfaces can be exceptionally smooth, non-absorbent and develop surface laitance. These surface conditions may adversely affect bond of floor preparation materials and adhesive and should be mechanically prepared by grinding or shot blasting to improve bond.
- Remove all curing compounds, silicate-based compounds or sealers that might prevent proper bonding or proper moisture testing. Mechanically abrade surface to ensure 100% removal of any curing compounds or sealers and achieve an absorbent surface.
- Bond testing must be performed prior to the installation. Use the specified flooring and recommended adhesive to install 3 ft. x 3 ft. (91 cm x 91 cm) test areas. Seal the edge of the flooring with duct tape to prevent adhesive from drying prematurely. Wait a minimum of 48 hours and preferably 72 hours to evaluate bond strength.
- 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. Other suitable moisture mitigation systems include products that are in compliance with ASTM F3010 "Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use Under Resilient Floor Coverings" that provide full product and adhesive bond warranty coverage when installed over a properly applied system. There are several manufacturers that offer compliant mitigation systems that can also provide expertise to effectively deal with moisture issues:

MANUFACTURER	WEB ADDRESS	PHONE NUMBER		
Custom Building Products	www.custom building products.com	(800)272-8786		
Ardex	www.ardexamericas.com	(888) 512-7339		
Koster	www.kosterusa.com	(757) 425-1206		
Mapei	www.mapei.com/US-EN	(800) 992-6273		
Schonox	www.schonox.us	(855) 391-2649		
UFLOOR Systems	www.uzin.us	(720) 374-4810		

# WOOD SUBFLOORS & UNDERLAYMENTS

- Wood subfloors shall be of double layer construction with at least 1 inch (25 mm) total thickness and comply with current local and national building code requirements.
- > The structural wood panels shall be APA rated and or recommended and warranted by panel manufacturer for intended use.
- Wood subfloors shall have at least 18 inches (46 cm) of well vented air space beneath and the entire crawl space shall be insulated. The ground surface should be leveled to prevent any pooling of water.
- Cover ground completely with a 6-mil plastic ground cover running up walls 6 inches (15 cm).
- > Do not install over wood floors in direct contact with the earth, concrete slab, over a sleeper floor assembly.
- Wood subfloors shall have calibrated moisture content of less than 14% and be within 2% of underlayment and wood structural members.
- The double layer wood subfloor shall incorporate an APA Underlayment Grade top layer (such as Multi-Ply<sup>®</sup> or TEKPLY<sup>®</sup>) that is designed to meet the following requirements:
  - Minimum ¼ inch (6 mm) thickness
  - Sanded face that is 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 polyurethane
  - Moisture content less than 14% and panel layers within 2% 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 ½ inch (13 mm) thick 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 Underlayment's 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 plywood seams and areas where patch was used, to provide a smooth, level surface.

# **ADHESIVES**

- ➤ TEK One<sup>™</sup> Transitional Pressure Sensitive Adhesive
- Advanced resin based, cross linking adhesive that develops aggressive peel and shear strength that is recommended for most situations.
- Has no green grab when wetset and over time transitions from pressure sensitive to hard-set
- > 90% RH moisture limit (6.0 lbs. MVER) and NO pH limits
- Light foot traffic after 8 hours
- Full Traffic after
  - Minimum of 24 Hours when installed Dry-to-Touch
  - Minimum of 24-48 Hours when installed Tacky-Set
  - Minimum of 48-72 Hours when installed Wet-Set
  - Easy adhesive to work with
  - > 1-year shelf life Do Not Freeze

After installation - protect installation from traffic for time specified for adhesive used.

- PREVAIL 4000 Epoxy Adhesive
- Two-part reactive Epoxy Adhesive Wet Set only Hard Set for extreme conditions like:
- > BARIATRIC BEDS–Primary adhesive for use under bariatric beds–Greatest resistance to high torque and shear stress from pivoting wheels
- TOPICAL WATER Provides waterproof bond when cured
- DIRECT SUN EXPOSURE Best adhesive for direct sun or heat exposure
- HEAVY POINT LOADS Provides the best resistance to indentation of all adhesive choices.
- Suitable for use with all TEKNOFLOR/Shannon Flooring except
  - Barenaked CS
  - Barenaked LT
  - > HasNO green grab, so this will require using sandbags or cartons of tile to hold down the negative curl edge for 12 hours.
  - > Up to 85% RH limit and no pH limits (6.0 lbs. MVER)
  - > 1-year shelf life

#### RECOMMENDED TROWEL SIZE & NOTCH AND COVERAGE RATE:

Type of Installation	Trowel Size and Notch	Coverage
Tile / Plank / Sheet Porous Substrates	1/16" x 1/16" x 1/16" V	130 sq. to 155 sq. ft./gallon

- Trowel dimensions are depth/width/space. Coverage shown is for estimating purposes only. Actual jobsite coverage may vary according to substrate conditions, angle in which the trowel is held.
- Teknoflor does not warranty the use of alternate adhesives with Nature's Tile and Plank due to its unique composition. Extensive adhesive testing has been conducted and the recommended Adhesive's provide excellent performance under diverse installation conditions. Teknoflor will not be responsible for any issues arising from or associated with the use of alternate adhesives.

# PRE-INSTALLATION CHECKLIST

- Perform a bond test before starting installation to confirm compatibility of adhesive and prepared substrate. Nature's Tile and Plank must be installed wet set and have 100% transfer to the back of the flooring. Perform multiple bond tests on the prepared surface with 3' x 3' section of flooring. Allow a minimum of 48 hours (preferably 72 hours or longer) before determining compatibility and bond strength. Always check for complete adhesive transfer on the back of the flooring.
- Ensure all tools such as, Leister Triac heat welder, 100 lb. roller and all other tools and equipment are on-hand and are in good working order
- > Only use replaceable blades for your trowel, such as Versa-Blade. Never renotch trowel blades
- Confirm all adhesives, sundry items and floor covering materials are on-site.
- Confirm the flooring materials are the correct color, style, and quantity for each dye lot with consecutive roll numbers for sheet goods. Check flooring for any visible issues or defects BEFORE installation.
- Minor shade variations are within the same run number are common and add to the natural look.
- Any flooring materials found with visible defects, or any visible issues are warranty for materials only. No labor costs are covered for flooring materials installed with visible defects or other issues. Immediately contact your local representative or customer service at 800.522.9166 should an issue be discovered.
- Layout may be specified by the architect, designer, or end user, always refer to the architectural drawings.
- Always check with the GC, Architect or Designer to verify the manner in which the tile or plank should be installed, i.e., staggered, quarter-turned, diagonal or block.
- When installing Nature's Tile or Plank it is highly recommended that the layout be balance in the installation area.
- When installing Nature's Plank offset the end joints by at least 6".

# > Confirm that all pre-installation checklist, as detailed in the prior section, have been satisfactorily completed.

### > Start of flooring installation indicates acceptance of subfloor conditions and full responsibility for completed work.

- Before starting the installation, verify that the material is of the correct style, color, quantity, and run numbers.
- Acclimate tiles (keep cartons flat), adhesive, jobsite, and subfloor to a stable condition between 65°-85°F (18°-29°C) and 35%- 65% RH for a minimum of 48 hours before and after installation.
- Check material for visual defects before installation. Installation of flooring acknowledges acceptance of materials
- Open and blend 5 cartons of tile or plank.
- Sweep and vacuum the substrate.
- Layout area using either the 3-4-5 layout method or the swing arcs method.
- Adjust for a balanced installation.
- Snap lines. (NO RED CHALK).
- Snap adhesive spread lines using full tile measurements, typically an arm's reach.
- Spread the adhesive using the proper notched trowel.
- > Allow adhesive to flash off while still installing into semi wet adhesive. This may vary depending on jobsite conditions.
- > Periodically pull back a tile or plank during installation and check for adhesive transfer to backing.
- Install the tile or plank working off the material to avoid adhesive displacement or shifting of material.
- Use of kneeling boards is required when working on newly installed tile or plank.
- When making cuts at vertical surfaces (walls) use a tile cutter, straight edge, or square to score and cut.
- When making hot cuts the use of a heat gun is required. (NO TORCHES) These cuts should achieve a net fit. Because of the nature of the PVC free material do not overheat and force the material around door jambs as the material will bubble back.
- Roll tile or plank using a 100lb. roller first in the length and then the width.
- Remove excess adhesive from the tile edge.
- Repeat process until the area is complete.
- Reroll with 100lb. roller after 2 hours.
- Protect flooring
- No Traffic for 48-72 hours!!!

#### CARE AND MAINTENANCE

#### NO WAX - NO BUFF FLOORING

Nature's Tile and Plank PVC Free flooring features a proprietary high performance wear surface. This durable floor covering does not require any floor finish or buffing, ever. As a result, there is no need to use aggressive pads or strippers to maintain your floors. Welcome to the future of clean. Strictly follow all SOP's (Standard Operating Procedures) for your facility. Before starting maintenance or spot cleaning, make sure you have the correct safety and cleaning equipment and that it is in good working order. SAFETY PRECAUTIONS When performing wet maintenance, always put out wet floor caution signs and or caution tape and prohibit traffic until the procedure is done. Promptly remove caution signage when the maintenance procedure is complete, and the floor is dry.

Carefully follow each product's label instructions for proper use. Refer to the products SDS (Safety Data Sheet) to understand the hazards and precautions associated with each product and use the appropriate personal protective equipment for each cleaning product. Floors are more Slippery when wet or contaminated with oils, grease, silicone or other contaminants. Immediately clean up spills or contaminants to maintain the floors' surface tractions. DO NOT mix any chlorine bleach containing cleaner with ammonia or acidic cleaners. The combination can create toxic gases.

#### INITIAL FLOOR CARE

Permit foot traffic on the new floor after waiting the time referenced for the adhesive used. With trowel applied adhesives, wait a minimum of 24 hours for foot traffic and keep furniture, fixtures, rolling loads and heavy traffic off the new floor for at least 72 hours. Allow immediate foot and rolling traffic when the flooring is installed using spray adhesive.

Sweep, dust mop or vacuum the floor to remove all loose dirt and grit. Lightly damp floor with well rung mop as needed. Remove acrylic adhesive residue contamination with Heavy Duty Goof Off<sup>®</sup> water based cleaner (in plastic containers). Before use of any cleaner, test in an inconspicuous area first for any adverse reaction. Apply cleaner to a clean terry cloth towel. Place the damp cloth over the spot and let sit for 1-2 minutes to loosen and soften the adhesive. Carefully blot and rub the adhesive off the surface with the damp cloth rotating to clean sections of the cloth during cleaning. Rinse the surface with clean water and blot dry.

Wait 72 hours (3 days) or longer before wet cleaning the new floor or in areas where flooring has recently been replaced. Perform initial cleaning using the Periodic Deep Cleaning Maintenance procedures.

## SPOT CLEANING

Remove surface contamination with Heavy Duty Goof Off <sup>®</sup> water based cleaner (in plastic containers), Windex<sup>®</sup> or denatured alcohol. Before use of any cleaner, test on an inconspicuous area first.

Apply the cleaning solution onto a clean white terry cloth. Put the wet cloth over the contamination and let sit for 1-2 minutes. This helps to loosen and soften the contaminant. Gently rub and buff the spot off the surface with the damp cloth rotating to clean sections of the cloth during cleaning. Keep in mind that it may take more than one application to remove the contaminant. To aid in removal of stubborn contaminants, carefully use a non-abrasive scrubbing pad for increased agitation.

Apply additional cleaner to a clean section of cloth and continue to gently rub and buff the remaining contaminant until it is removed. When finished, rinse the surface with clean water and blot dry with a clean towel. ROUTINE MAINTENANCE (DAILY OR AS NEEDED) Sweep, dust mop or vacuum the floor to remove all loose dirt and grit. Do not use treated dust mops.

When available, clean the floor with an auto scrubber using a properly diluted Neutral pH cleaner and a 3M 5100 Red pad or equivalent pad or brush. Rotary or cylindrical brush cleaning is recommended for textured floors. DO NOT USE A MORE AGGRESSIVE PAD OR BRUSH. When an auto scrubber is not available, mop on a properly diluted Neutral pH floor cleaner. Apply the solution liberally, but do not flood the floor. Clean the floor using a mop, flat mop, or machine scrub with a low speed (175-350 RPM) swing arm floor machine using a 3M 5100 Red pad or equivalent pad or brush.

Completely remove the cleaning solution using an auto scrubber, shop vacuum or mop and let the surface dry. Fans or air movers can speed up the drying process. Once the floor surface is clean and dry, remove caution signs and return the floor service.