



## DeZign Luxury Vinyl Planks

### Subfloors / Preparation -- Glue-Down Installation

#### Definitions

**Subfloor:** Provides structure and support for the underlayment.

**Underlayment:** The smooth surface, which the floor covering is to be installed upon.

**Subfloor/Underlayment System:** The required surface that provides both structure and support with the necessary smooth surface for tile floor coverings. These systems must be 1 inch total thickness and double-layered construction.

**Sleeper:** Construction of a wood subfloor system over the top of a concrete substrate. Although some of these may provide adequate support, due to the possibility of moisture transmission from the concrete substrate they are not recommended as a substrate for installation of DeZign Plank Flooring.

#### Grade Levels

**Above-Grade** – An acceptable above-grade floor is a concrete or wood substrate with a minimum of 18" (460mm) of well-ventilated air space below. It is recommended that a 10mil polyethylene moisture vapor barrier be placed upon the ground beneath the air space.

**On grade** – An acceptable on-grade floor is a concrete substrate in direct contact with the ground or over a fill in direct contact with the ground. Properly constructed, the concrete slab will be suitably protected from moisture penetration by planned water drainage and an installed proven moisture vapor barrier.

**Below grade** – An acceptable below grade floor is a concrete substrate partially or completely in contact with the ground below the average surrounding grade level. Properly constructed the concrete slab will be suitably protected from moisture penetration by planned water drainage and an installed proven moisture vapor barrier.

#### CONCRETE

**Note: Regardless of the type of concrete or cement-like material used as a base for DeZign Flooring, the responsibility for proper suitability rests with the concrete products' manufacturer or specifier, not with DeZign. All concrete floors, old or new, should be tested for moisture.**

DeZign Plank Flooring may be installed on all grade levels. Concrete floors shall be constructed in accordance with the American Concrete Institute (ACI) 302.1 R-96 Guide for Concrete Floor and Slab Construction and ACI 360R Slabs on Grade with a minimum compressive strength of 3500 psi. In some cases, shrinkage compensating concrete is used to minimize or eliminate cracking caused by dry shrinkage in floor slabs. Such slabs should be constructed in accordance with ACI 223-83 Standard Practice for the Use of Shrinkage Compensating Concrete. These guides and practices are available from the American Concrete Institute, P.O. Box 9094, Farmington Hills, MI, 48333.

The single most important consideration affecting tile flooring installations is knowledge and proper preparation of the construction site. Prevention of moisture and alkaline transmission through the slab into the adhesive film and tile flooring eliminates potential problems.

Proper site preparation, slab construction and the use of an effective moisture vapor retarder will make a successful installation more likely. A 10 mil polyethylene sheet or equal is recommended. The sheet must remain intact and must not be damaged or ruptured prior to or during the concrete pour. Regardless of the age of an on, above or below grade concrete slab, installation failures can occur due to the presence of moisture in the slab. The moisture can come from the slab itself, if not completely dry or from the ground as the slab comes to equilibrium with ground moisture. A slab may seem dry,

but actually has moisture passing through it and evaporating. As moisture passes through a slab, it can carry with it alkaline salts from the ground and/or slab itself. Moisture and alkali cause various installation problems such as adhesive deterioration, bumps or ridges, color change and mold and mildew growth. Any or all of these conditions might be expected to occur in an undeterminable period of time after installation if a severe moisture condition is present before, during or after installation.

Installers and tile flooring manufacturers have little control over these factors. Installation failures due to the presence of moisture or alkali are not warranted by DeZign.

Although the dryness of an on or below grade concrete slab can be determined at the time of installation, it is not a guarantee that the slab will be free of excess moisture forever.

## Moisture Testing

It is the flooring contractor's as well as the installer's responsibility to test all concrete substrates, both new and old, for moisture content to determine if it is sufficiently dry to install DeZign Luxury Planks flooring. A concrete slab shall be cured a minimum of 90 days (preferably 120 days) before running moisture tests. These time periods are absolute minimum and concrete may require additional drying time dependent upon local environment conditions.

Moisture in the concrete should be tested according to **ASTM F 1869 (Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride)**.

The Quantitative Calcium Chloride Moisture Test Kit contains anhydrous calcium chloride. It employs the principles of both chemical absorption and entrapment of moisture vapor. A pre-weighed amount of anhydrous calcium chloride stored and sealed in a clear plastic cylindrical container is placed on a clean area of the concrete slab to be tested. It is then unsealed, opened, and covered with a larger transparent plastic cover adhered to the slab with a moisture-tight sealant. The test is run for approximately 60 – 72 hours and the amount of moisture absorbed by the calcium chloride is determined and converted to pounds of moisture/1,000 square feet/24 hours. **The results should be no more than 3 lbs./1,000 sq. ft./24 hours.**

Moisture vapor may also be tested using the relative humidity test **ASTM F 2170 (Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes)**. When tested according to this method, the internal relative humidity shall not exceed 75%.

In areas 1,000 square feet or less, a minimum of three tests shall be made; for each additional 1,000 square feet, one additional test should be made. These tests should be made simultaneously and the test units should not be concentrated, but not closer than 5 feet from the edge.

**CAUTION: ALL MOISTURE TEST RESULTS ONLY INDICATE THE CONDITION OF A CONCRETE SLAB FOR THE ACTUAL AREA TESTED AND ONLY AT THE TIME OF THE TEST. ACCURATE TEST RESULTS WILL ONLY BE ACHIEVED WHEN TAKEN IN A ROOM ACCLIMATED TO ITS EXPECTED NORMAL ENVIRONMENTAL CONDITION. MOISTURE VAPOR EMISSION FROM CONCRETE SUBFLOOR VARIES BOTH FROM ONE AREA TO ANOTHER AND OVER TIME FOR NUMEROUS REASONS BEYOND THE CONTROL OF THE FLOORING CONTRACTOR OR INSTALLER.**

**Although the dryness of an on or below grade concrete slab can be determined at the time of the installation, it is not a guarantee that the slab will be free of excessive moisture forever.**

**NOTE: DeZign does not warrant or guarantee flooring problems caused by the presence of excessive moisture, alkali or hydrostatic pressure.**

## Surface Alkalinity on Concrete Substrate

Concrete by its very nature is a highly alkaline material. Under normal conditions this situation does not affect tile floor coverings and their adhesives. This does become a factor when concrete surface alkali salts build-up, usually as the result of excessive moisture vapor transmission through the concrete slab. Moisture carries alkali salts from the interior of the slab to the surface, which are left behind when the moisture evaporates. Excessive alkali has been known to degrade adhesives and tile floor coverings leading to poor appearance, maintenance difficulties, and in extreme cases, total floor failure. Measures of alkalinity are usually expressed in terms of a pH number. The normally encountered pH scale ranges from 1 to 14 with 7 being neutral. Numbers moving downward from 7 indicate increasing acidity and numbers moving upward from 7 indicate increasing alkalinity.

Readings of pH in excess of 9 have been known to affect tile floor coverings and adhesives and are usually suggestive of excessive vapor/moisture transmission. The most common test performed for excessive surface alkali is the **pH Paper Test**.

Materials required:

Wide range pH Test Paper (obtained from chemical/scientific supply house).

Distilled Water

Eye Dropper

The pH Test paper will change color when in contact with dissolved alkali salts. Reading of pH on the 1 through 14 scale can be determined by comparing paper color after exposure to chart provided by pH Test paper supplier. Concrete floors to be tested must be clean, dust free, and at normal room temperature. **NOTE: Drywall dust, subfloor patching compounds, and other contaminants will**

influence test results. Several drops of Distilled Water are deposited on the test point with the clean eye dropper (enough to form a quarter sized puddle), allow to react for 2-3 minutes, pH Test paper strips are placed into the water spot. Between 30 seconds and 1 minute after test strips are placed into water, color of the test strips are compared to the chart and a pH number reading is determined. Readings of pH in excess of 9 have been known to affect tile floor coverings and adhesives and are usually suggestive of excessive vapor/moisture transmission. Washing the concrete with clean water can lower alkalinity. **However, it cannot prevent future deposits of alkali on the surface of concrete.** Acid washes have been used to neutralize alkalinity, but it is important to remember that acids can leave a residue, which can be detrimental to the final installation.

## Sealers, Curing and Parting Compounds

Sealers, curing and parting compounds used on concrete substrates may not be compatible with the adhesive and may interfere with the adhesion of the flooring material. Therefore, DeZign does not recommend the use of such products. These products shall be removed using a terrazzo grinding machine or by sanding with a drum sander. A bond test shall be performed to determine if adhesion properties are acceptable.

## Bond Test

A bond test shall be performed on all grade levels of concrete substrates to determine if the concrete is sufficiently dry and if a sealer, curing or parting compound was used.

Install a few pieces of the flooring material selected for the installation and adhere with the recommended adhesive.

Pay particular attention to the adhesive open time. If after 72 hours an unusual amount of force is required to lift the material from the substrate, and if after doing so, adhesive transfers to both the substrate and to the back of the flooring, the flooring can be considered "securely bonded."

**NOTE:** Regardless of the bond test or the type of surface treatment used, the responsibility for warranties, guarantees, and performance of a concrete substrate on which a surface treatment has been applied rests with the manufacturer of the surface treatment product for adhesion and/or patching compound failures and not with DeZign.

## Mat Moisture Test

The mat moisture test is a good method for determining if moisture is present. Place a 3' x 3' piece of 10mil or thicker polyethylene on the concrete. Securely tape all edges of the sheet with duct tape so no air can penetrate. After 24 hours, remove the sheet and inspect for any evidence moisture. If the covered area of concrete appears wet, darker in color or if there is moisture on the polyethylene sheet, do not install the flooring. The concrete shall be given additional time to dry and then retested.

## Floor Flatness

The surface flatness or levelness will affect the finished appearance of tile floor coverings. Installation of tile flooring products over an excessively uneven or undulating concrete slab will require working techniques on the part of the installation contractor that would include leveling and smoothing.

It is recommended that both flatness and levelness requirements be described by Face Floor Profile Numbers (F-numbers). Refer to the American Concrete Institute ACI 302.1 Guide for Concrete Floor and Slab Construction.

## Painted Floors

DeZign does not recommend installation of DeZign Plank Flooring over painted surfaces. All paint must be removed from the surface to be covered.

**CAUTION: Certain paints may contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state and local laws and Lead-Based Paint Interim Guidelines for hazard Identification and Abatement in Public and Indian Housing (Sept. 1990) or subsequent editions published by the U.S. Department of Housing and Urban Development regarding: (1) appropriate methods for identifying lead-based paint and removing such paint; and (2) any licensing, certification, and training requirements for persons performing lead abatement work.**

## Radiant Heat Floors

DeZign Plank Flooring may be installed over radiant heated floors, provided the operating temperature does not exceed 85°F (29.4°C).

**NOTE:** During installation, lower the radiant heated floor temperature to a minimum 65°F (18.3°C).

This temperature should be maintained for at least 24 hours before, during and 48 hours after completion of the installation. On ground floors the radiant heating system should have a proper moisture barrier beneath it. The concrete should be tested for moisture before the tile flooring is laid. Heating pipes must be at least 2" (50 mm) below the floor surface. If the heating pipes are too close to the vinyl flooring, the vinyl may discolor next to the pipe work. Gradually increase temperature in increments of 5° per hour.

## Lightweight Concrete

Lightweight concrete substrate either aggregate or cellular should first be determined as suitable for the installation of DeZign Plank Flooring. At a minimum, lightweight aggregate concrete should have dry densities greater than 90 lbs. per cubic foot and cellular concrete should have wet densities over 100 lbs. or 94 lbs. dry weight per cubic foot. Lightweight concrete may contain excessive moisture and must be tested to determine if it is dry enough to install DeZign Plank Flooring. In locations where heavy static or dynamic (rolling) loads will occur, concrete should be designed at the construction planning stage to accommodate this need.

**NOTE: DeZign does not recommend or warrant the use of products containing gypsum as a satisfactory underlayment for the installation of DeZign Plank Flooring.**

## Concrete Preparation

Prior to installation of DeZign Plank Flooring, the concrete shall be prepared in accordance with ASTM F 710 Preparing Concrete Floors to Receive Resilient Flooring. The surface of the concrete must be dry, clean, smooth, level and structurally sound. The slab shall be swept, damp mopped and/or vacuumed to remove any dust. Any surface materials present such as paint, wax, grease, oil, adhesive residues, crayon, pen marking, etc. that may prevent a proper bond or migrate to the surface of the flooring causing discoloration, must be removed. Fill and level any cracks, construction joints, control joints, depressions, grooves or other irregularities with a high quality, non-shrinking, latex fortified, cement patching compound.

**NOTE: DeZign does not recommend or warrant the use of any products containing gypsum as a satisfactory patching compound for installation of DeZign Plank Flooring. DeZign will not accept responsibility for flooring failures related to the use of gypsum type patching and/or leveling compounds.**

## Expansion Joints

Expansion joints allow for movement between two concrete slabs. If tile flooring is installed over an expansion joint, adhesive bond failure, buckling and cracking of the flooring material is likely to occur. Do not install DeZign Plank Flooring over expansion joints. Flooring material shall be cut to either side of the joint and then covered with an expansion joint cover. Use a cover that will provide a smooth transition and prevent a tripping hazard.

## Self-Leveling Compounds

There are a large number of these products available on the market today with various compositions and performance characteristics. They have been recommended by their manufacturers for smoothing rough or irregular subfloors, encapsulating asbestos containing flooring and adhesives, for acoustical or for certain fire prevention characteristics as well as other concerns. A cement, latex reinforced type having a minimum compressive strength of 3,500 PSI or greater is recommended. We do suggest they be obtained from a quality manufacturer that provides a warranty for this product's use as a tile flooring underlayment. Manufacturers such as "Ardex®" and "Mapei®" have products that meet these criteria for self-leveling and should be contacted for further information.

NOTE: All warranties and guarantees regarding the suitability and performance of these products, rests with the levelers manufacturer or the installation contractor, not with DeZign.

## Residual Adhesives

All existing residual adhesive must be removed or covered with an approved self-leveling compound designed for this purpose. The leveler must be recommended for use as an underlayment for installation of DeZign Plank Flooring. Manufacturers such as "Ardex®" and "Mapei®" have products that meet these criteria for self-leveling and should be contacted for further information.

Removal of adhesive residues over plywood is very difficult. Therefore, installation of new underlayment is recommended. Lay thin sheets of paper over residual adhesive prior to installing new underlayment.

DeZign does not recommend the use of solvent-based adhesive removers. These products leave a residue within the substrate that can adversely affect the new adhesive and flooring material.

**DO NOT SAND, DRY SWEEP, SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT OR ASPHALTIC "CUT-BACK" ADHESIVES. THESE PRODUCTS MAY CONTAIN EITHER ASBESTOS FIBERS 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 SERIOUS 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.**

Instructions for removal of existing flooring and residual adhesives can be found in the Recommended Work Practices Manual for the Removal of Tile Floor Coverings. This manual can be obtained from The Tile Floor Covering Institute, 966 Hungerford Dr., Suite 12-B, Rockville, MD, (301) 340-8580.

## WOOD SUBSTRATES

**Wood Substrate Construction:** Suspended wood substrates shall be 1" or thicker, double construction, strongly constructed, free from spring and have minimum of 18" of well-ventilated air space clearance above the ground. A moisture vapor retarder (10 mil or thicker polyethylene sheeting) should be installed over the ground with overlapped widths and lengths, to reduce moisture vapor transmission. The joists shall be spaced not more than 16-inches (406 mm) on centers. If joists are warped or twisted, have high crowns, or otherwise do not present a flat, true base for the substrate, these conditions must be corrected before installing substrate. All substrate panels must be fastened to the joists in accordance with their manufacturer's recommendations to preserve their warranties. NOTE: Protruding fasteners must be made flush with the surface of the subfloor panels before beginning installation of underlayment.

**Single Wood Floors:** Single plywood subfloors are not recommended in areas where tile flooring is to be installed. They are the major cause of nails popping and squeaking. These subfloors must be covered with a minimum of ¼" or thicker underlayment grade plywood.

**Stripwood Substrates:** Single and/or double tongue-and-groove stripwood floors should be covered with a 3/8" or thicker underlayment grade plywood to eliminate telegraphing of the stripwood floorboard joints.

## Plywood Underlayment

Underlayment grade plywood is used to resurface an existing wood subfloor. The finished appearance of any tile flooring installation will be determined in part by the underlayment over which it is installed.

Underlayment grade plywood used for tile flooring shall meet the following requirements:

- Be ¼" or thicker with a fully sanded face.
- Be structurally sound with no voids and dimensionally stable
- Designed for use with tile flooring.
- Texturing or graining will not telegraph through the flooring.
- Withstand damage from heavy loads.
- Be free of any substances that may stain flooring

The underlayment panels listed and their recommendation for use with DeZign tile flooring are intended only as a guide. The underlayment selected is subject to the discretion of the installer.

DEZIGN strongly suggests that when purchasing underlayment, a warranty and installation instructions be obtained from the supplier.

### RECOMMENDED UNDERLAYMENT PANELS

- APA Underlayment Grade Plywood A-C, B-C, C-C Plugged.
- ACCU-PLY
- IntegraPly
- SurePly
- TECPLY
- ULAY
- Ultraply
- C.S.A. (CanPly)
- Proboard

**DEZIGN CANNOT WARRANT OR GUARANTEE UNDERLAYMENT PANELS USED WITH DEZIGN PLANK FLOORING. THE RESPONSIBILITY FOR WARRANTIES, GUARANTEES AND PERFORMANCE OF THE UNDERLAYMENT PANELS RESTS WITH THE MANUFACTURER OF THE UNDERLAYMENT AND NOT WITH DEZIGN.**

DeZign will not accept responsibility for the following:

- Joint or texture telegraphing.
- Tunneling or ridging over underlayment joints.
- Discoloration originating from underlayment panel unless otherwise specified in the product warranty.

**CAUTION:** Some plywood underlayment manufacturers use plastic or resin filler to patch surface voids. Some filler can cause discoloration in vinyl flooring, specify plywood underlayment with wood plugs and fills.

All underlayment panels other than those listed are not recommended for use with DeZign Plank Flooring.

## APA Rated Sturdi-Floor Construction

DeZign does not recommend installation of tile flooring directly over Sturdi-I-Floor. Install ¼" or thicker underlayment grade plywood over these type panels.

## AdvanTech® Flooring

DeZign does not recommend installation of tile flooring directly over AdvanTech® Flooring. Install ¼" or thicker underlayment grade plywood over these type panels.

## Lauan or Maranti Plywood

A wide variety of species and grades of Lauan or Maranti plywood have been imported into North America and sold for use as underlayment. Although they do not have all the preferred properties for underlayment, many retailers are using these panels under Tile flooring with reasonable success. If Lauan or Maranti is used, it should be classified as Type 1, Exterior (Ext), which indicates the panel has an exterior glue bond. This may also be designated by the letters "BB" or "CC". However, many of these panels have caused severe problems such as discoloration, delamination and adhesive failures.

## Construction Adhesives

Certain industrial grade adhesives used in the construction trade to adhere subfloor panels have been known to discolor resilient flooring products even if covered over with plywood underlayment or trowelable underlayments. Any construction adhesives used in subfloor construction must be guaranteed to be non-staining for resilient flooring materials by its manufacturer. DeZign will not accept responsibility for discoloration problems related to the use of construction adhesives.

## Storage and Handling

Underlayment panels should be stored indoors in a dry, covered area. Panels shall be laying flat over a minimum of two supports. It is extremely important for both remodeling and new construction applications that the underlayment panels be allowed to acclimate to room conditions and that the underlayment panels are protected from extremes of heat and moisture before, during and after installation.

## Installing Underlayment Panels

**Installation of underlayment panels shall be performed in accordance with their manufacturers' recommendations to preserve their warranties.**

Laying the underlayment panels should begin in one corner of the room. Lay all underlayment panels in the same direction. Underlayment panel edges and subfloor edges should be offset at least 8". A space of 1/4" to 3/8" shall be left between the panels and the wall around the perimeter of the room. Stagger panel joints so that four corners do not meet. Cross joints should be staggered at least 16". The panel edges shall be lightly butted to together.

New underlayment shall not be installed over heavily cushioned flooring. These will not provide a firm base for underlayment application resulting in deflection or scissoring action at the seams. Telegraphing of underlayment joints and nail pops will also occur.

## Fastening Panels

**Nails:** Cement coated or resin coated fasteners can stain tile flooring. Use non-coated ring-shank or screw type underlay flooring nails. The length of the nail shall not exceed the total thickness of the subfloor and underlayment. Space nails 2" to 4" on center at panel edges and 6" on center throughout the field.

**Staples:** Stapling underlayment panels using a staple with a divergent chisel point is recommended. Staples should be spaced 1"-2" along the edge and 3"-4" on center throughout the field.

Begin fastening at one corner of underlayment panels and work diagonally across panels (fan nail). Fasteners shall be set flush or just slightly below the surface of the underlayment.

## Underlayment Preparation

Prior to installation of DeZign Plank flooring, the underlayment shall be prepared in accordance with ASTM F 1482 Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring. The underlayment must be dry, clean, smooth, level and structurally sound. The underlayment shall be swept and/or vacuumed to remove any dust and debris. Any surface materials present such as paint, wax, grease, oil, adhesive residues, crayon, pen marking, etc. that may prevent a proper bond or migrate to the surface of the flooring causing discoloration, must be removed.

Fill and level underlayment joints and all other irregularities with a high quality, non-shrinking, latex fortified, cement patching compound.

NOTE: DeZign does not recommend or warrant the use of any products containing gypsum as a satisfactory patching compound for the installation of DeZign Plank Floorings. DeZign will not accept responsibility for flooring failures related to the use of gypsum type patching compounds.

## EXISTING RESILIENT FLOORS

Due to the problems associated with the removal of old flooring products and their adhesives, it may be desirable to leave the existing flooring intact with the last alternative being removal. DeZign Plank Flooring products may be installed over a single layer of non-cushioned, existing flooring. Many installations over existing floors are satisfactory, however their success is dependent upon the condition of the existing floor covering. Leaving the old floor covering down under a new installation increases the possibility of indentations, telegraphing of the old floor and poor adhesion. There is also a high degree of risk with cemented installations over sheet vinyl flooring with unfilled wear surfaces, urethane finishes and old floor coverings installed on concrete that show evidence of excessive moisture or alkali.

Note: The final decision to cover an existing floor with new flooring rests with the flooring contractor and/or installer. DeZign will not accept responsibility for floor failures where the condition, type or improper preparation of the existing floor is the cause for the failure.

**DO NOT SAND, DRY SWEEP, SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY PULVERIZE EXISTING TILE FLOORING, BACK ING, LINING FELT OR ASPHALTIC “CUT-BACK ” ADHESIVES. THESE PRODUCTS MAY CONTAIN EITHER ASBESTOS FIBERS 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 SERIOUS 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.**

**The existing floor must meet the following requirements:**

- The existing floor must be fully and well adhered. Carefully inspect bond along walls and seams and repair if necessary. The existing floor must not be a perimeter adhered or glueless floor.
- The existing floor must not be a cushion or foam backed product and shall not contain a thick foam inner-layer.
- The existing flooring must be properly installed over a recommended substrate.
- The existing floor must be a single layer.
- All floor polishes, waxes, or other surface coating must be removed by means that will not damage the integrity of the existing floor system.
- Any damaged areas must be repaired
- Existing floors shall be smoothed and leveled with a good quality, embossing leveler.
- Do not install DeZign Plank Flooring over existing asphalt tile and linoleum flooring.
- Do not install DeZign Plank Flooring over existing tile flooring below grade.

## **Embossing Levelers**

The use of a good quality embossing leveler, is designed to eliminate the need to remove most existing floors by filling and leveling the surface of existing embossed floors prior to the installation of DeZign Plank Flooring.

It is important that the flooring surface be cleaned and free from floor finishes and foreign matter prior to the application of the embossing leveler. Mix and apply the embossing leveler in accordance with its manufacturers' recommendations. Manufacturers such as “Ardex®” and “Mapei®” have products that meet the criteria for embossing levelers and should be contacted for further information.

**Note: All warranties and/or guarantees for the embossing leveler are the responsibility of the products manufacturer, not DeZign.**

# **DEZIGN LUXURY VINYL PLANKS**

## **LAY OUT AND INSTALLATION**

To square the area to be covered, first find the center of one end of the main rectangle. Locate the same point at the other end wall. Snap a chalk line between these points. Measure this center line to find the middle of the room and mark. A right angle must be established off this center mark. Use one of the following methods to establish a right angle.

### **Method 1**

At the center point, mark off a line across the room at exactly right angles to the first line. This may be accomplished by the 3-4-5 triangle method (Figure 1).

- Measure 4 feet out on the chalk line towards each side wall from the center point and mark chalk line.
- Using a carpenters square and a straight edge, establish a right angle on both sides of the chalk line 3 feet out from the center point of the chalk line and mark substrate
- Measure the distance between the 3 foot mark and the 4 foot mark. This measurement should be exactly 5 feet. If the 5 foot measurement is not exactly 5 feet, the center crossing line is not at a true right angle and must be adjusted to achieve a right angle. For larger rooms, multiples of 6-8-10 or 9-12-15 may be used to obtain greater accuracy.

### **Method 2**

- Measure 4 feet out on the chalk line towards each side wall from the center point and mark chalk line.

- At each 4 foot mark, swing a 5 foot line and mark an arc on the floor approximately 3 feet out from the center point of the first line. Where the arcs intersect is the right angle to the first line.
- Repeat the process on the opposite side of the first line.
- Snap a chalk line between both intersecting points to achieve a right angle.

After room has been squared, determine the width of the border planks. Generally, the width of the border planks should be at least one half the size of a full plank. This can be done simply by measuring across the room full planks. Measure the distance between the wall and the last full plank. Add this distance to the size of a full plank and divide by two. The sum will be equal sized planks for both sides. Repeat this procedure for opposite wall. It will be necessary to adjust the starting line to achieve equal sized border planks. Make sure to snap a new guide line.

After the guideline has been established, they may be adjusted in multiples of the width of the plank being installed to accommodate your particular installation.

**Once guideline has been finalized, place a straight edge over the chalk line and pencil the line.**

## **Adhesive Application**

**DeZign Luxury Planks require a premium wet-set adhesive. Examples are: Mapei ECO360, Armstrong LVT100, Tarkett 400, etc.**

Apply adhesive per manufacturer's instructions, and only apply an amount of adhesive that can be covered within 20 minutes.

**Planks must be installed while adhesive is wet.**

As the planks are installed, periodically roll with a 100 lb. sectional floor roller across the width and length of the installation to flatten the adhesive ridges and to expel any entrapped air. Use a hand roller in areas not reached by the 100 lb. roller.

## **When Installing The Planks.....**

**To ensure the best color match when installing DeZign Luxury Planks from two or more cartons, make the run numbers on each carton of planks are the same.**

Begin laying the planks along the guideline taking into consideration the length of the last plank in the row. The first and last plank in each row shall not be less than the width of the plank being installed. Lay the first few planks perfectly on the guideline as this will affect the entire installation. Make sure each plank is flush against the adjoining plank. Lay planks in a pyramid fashion. Take care to place planks as accurately as possible without sliding them into place.

**MAKE SURE PLANKS ARE WELL SEATED INTO THE ADHESIVE, PAYING SPECIAL ATTENTION TO THE EDGES. PERIODICALLY LIFT A PLANK TO MAKE SURE THERE IS GOOD TRANSFER OF ADHESIVE TO THE BACK OF THE PLANK.**

**When finished, roll the entire floor area with the 100 lb. sectional floor roller.**