

Installation Guidelines

Praxis Solid Cork Flooring

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Section I. Sub-Floor Preparation

Proper sub-floor preparation is critical. All guidelines contained in these instructions must be followed to ensure a successful floor covering installation. Should you have any questions regarding sub-floor preparation, contact Zandur or your local distributor.

1. General Information & Requirements for All Sub-Floors

- A. Praxis cork flooring is cut to tolerance at the time of shipment. Due to potential dimensional changes during storage, those tolerances are only guaranteed for 90 days from date of shipment when properly stored in climate controlled space.
- B. Zandur products must be installed on a subfloor that is permanently dry, clean, smooth and structurally sound. The sub-floor must be free of contaminants such as paint, oil, wax, mold, adhesive residues, sealers or any other materials that may interfere with adhesive bonding. See section I.2.A for approved wood sub-floors or section I.3.A for approved cementitious sub-floors. **DO NOT INSTALL MATERIAL OVER EXISTING FLOOR COVERINGS OR ON SUB-FLOORS WITH ADHESIVE RESIDUE**
- C. Cork flooring is susceptible to fading from direct UV light exposure. Installation is suggested only in areas not exposed to direct sunlight or where proper window treatments to limit UV exposure are present.
- D. Prior to installation an adhesive bond test must be performed by gluing a tile to the sub-floor. Allow adhesive to cure overnight. If bond is sufficient, tile will be laying flat and it will not be possible to remove tile by hand.
- E. Zandur flooring products are not intended to be installed over existing floor coverings and are not warranted if installed in this manner.
- F. All Sub-floors shall be flat to within 3/16" in 10' and shall be patched or skim coated with a hard setting underlayment compound to ensure substrate is completely smooth. Cementitious underlayment must have a minimum compressive strength of 3,000 psi. Do not apply patching material over existing adhesives. Zandur is not responsible for any claims submitted on floors where patching materials have been applied over adhesive residue or existing floor coverings regardless of manufacturer instructions. After patching or skimming is complete, floor must be sanded or scraped to remove any trowel marks or other inconsistencies which may telegraph through the finished flooring material. Follow manufacturers guidelines for product mixing and use instructions.

Should the following instructions for sub-floor preparation and floor covering installation leave any questions unanswered contact Zandur at 888.397.2656.

2. Preparation of Wood Sub-Floors

- A. Zandur floor covering products may be installed over 3/8" or greater A/C grade plywood or underlayment board such as Tecply or Halex (Arctic or Baltic Birch).
- B. Zandur products are not approved for installation over panel underlayments such as Masonite, luan, particle board, OSB, cementitious underlayment panel, wood underlayment with knots or coated wood.
- C. Prepare wood sub-floor per ASTM F 710, Standard practice for installation and preparation of panel type underlayment to receive resilient flooring, as it relates only to approved wood underlayments.
- D. Follow manufacturers instructions for installation regarding fastening pattern and joint spacing. Do not install underlayment with screws.
- E. Once installed, patch subfloor with cementitious material as instructed in section I.1.D.

3. Preparation of Concrete Sub-Floors

- A. Concrete sub-floors shall be prepared in accordance with ASTM F 710 Standard practice for preparing concrete sub-floors to receive resilient flooring.
- B. Concrete sub-floors must be clean as per section I.1.A. Pay specific attention to possible presence of a sealer which must be removed. It is highly recommended to shot blast or bead blast existing concrete sub-floors prior to installation to remove sealers, adhesives and/or any other surface contaminants.
- C. Concrete sub-floors on or below grade must have a moisture retarder and all concrete subfloors, regardless of age, must be tested for the moisture vapor emission rate and relative humidity to ensure the sub-floor is suitable for floor covering installation.
- D. Testing of concrete shall be performed ONLY when the building is enclosed and when the HVAC system has been in operation for at least 7 days. Furthermore, job-site temperature and humidity must be at the level expected during normal use or in the range of 65°F to 85°F and 45% to 55% relative humidity.
- E. Moisture tests must be performed at a rate of 3 for the first 1,000 square feet and then 1 additional test per additional 1,000 square feet.
 - i. **Moisture Vapor Emission Rate** shall not exceed 3 lbs./1,000 square feet/24 hours as tested in accordance with ASTM F 1869 (Calcium Chloride Test).
 - ii. **Concrete Relative Humidity** shall not exceed 75% as tested in accordance with ASTM F 2170 (Relative Humidity Probe Test).
- F. If Sub-Floor moisture exceeds those rates above, a moisture control system will be required. Moisture tests must be repeated after installation of any moisture control system to verify it has solved the issue.
- G. Sub-Floor pH must be tested with wide range pH paper and verified to be no greater than 9. Test as per ASTM F-710.
- H. Level sub-floor as specified in section I.1.D.
- I. Allow patching materials to dry naturally without the use of direct air or temporary HVAC.
- J. Zandur flooring may be installed over terrazzo floors, however terrazzo must be bead or shot blasted to ensure adhesion.
- K. Light-weight gypsum-based concrete typically has a low compressive strength and as a result is not suitable as underlayment unless the sub-floor meets compressive strength requirements. All concrete sub-floors must have a compressive strength of no less than 3000 PSI and must be dust free. If after cleaning, a white dust is present when you wipe the floor it is most likely of insufficient compressive strength and may not be suitable for flooring installation. Contact Zandur for information on how to prepare a sub-floor with this condition. A bond test is required as specified in section I.1.B.

4. Radiant Heated Sub-Floors – Concrete and Wood

- A. Zandur flooring products may be installed over radiant heat.
- B. Lightweight gypsum-based products are commonly used with in-slab radiant systems and many times have a low compressive strength. Concrete sub-floors must have a compressive strength of no less than 3000 PSI and must be dust free. If after cleaning, a white dust is present when you wipe the floor it is most likely of insufficient compressive strength and may not be suitable for flooring installation. Contact Zandur for information on how to prepare a sub-floor with this condition.
- C. Only in-slab or below sub-floor radiant heating systems are compatible with Zandur materials. Do not install product over mat type systems commonly used with ceramic tile floors. Heat must be limited to a maximum of 85° at all times during and after installation.
- D. Prior to sub-floor preparation, heating system must be activated to achieve a surface temperature between 65°F and 75°F for a minimum of 5 days prior to sub-floor preparation or installation of flooring.

Section II. Floor Covering Installation

1. Pre-Installation Checks

- A. **Acclimation** – Flooring Materials, adhesives and finishes must be acclimated to jobsite at least 72 hours prior to installation. Should relative humidity be below the required level, materials must be acclimated a minimum of 5 days. Should relative humidity be above the recommended level, material should not be installed. Except to verify material is correct and within specifications, it must remain in its original packaging during acclimation period. Cork tiles must be packaged face to face during this time.
- B. **Job Site Conditions** – Job site conditions must be maintained between 65°F and 75°F with a relative humidity between 45% and 75% for 72 hours prior to, during and 72 hours after installation. Temporary heating may not be used during acclimation or installation. Air must be free of dust and HVAC systems in full operation.
- C. **Sub-Floor** – If you have not reviewed sub-floor preparation instructions read them now. Once prepared per instructions, verify the floor is dry, level and dust free.
- D. **Patching/Skim Coat** – Ensure that the correct Ardex or equal cementitious patching compound was used and is properly cured. For solid cork flooring, patch must dry overnight.

Tip: If sub-floor or patching material is easily scratched, indented or is dusty even after being cleaned, installation cannot occur. Contact your dealer or Zandur for assistance.

- E. **Material Verification** – Prior to installation, randomly remove a few pieces of material from different cartons and compare to submittal sample to ensure client is satisfied with color, shade and/or shade variation. Additionally, verify tiles are square and otherwise visually acceptable. If the material does not meet client expectations, contact Zandur to arrange for replacement material.

Important: Installation signifies acceptance of material in all visual aspects. After the product is installed, the Zandur warranty does not cover incorrectly shipped or use of incorrect materials regardless of the situation. Additionally, the Zandur warranty does not cover visual defects including pattern, color, shade variance, squareness or thickness after the product is installed.

- F. **Adhesion Test** – In order to verify proper adhesion, two tiles must be installed on the sub-floor 12 hours prior to general installation. After 12 hours, the tile should lay flat and be difficult to remove. Should tile be curled or not adhered in any way, contact Zandur. DO NOT proceed with installation.

2. Layout of Floor

- A. Materials may be installed in both an ashlar (staggered joint) pattern or corner to corner.
- B. Some patterns are directional as is obvious by the pattern. Tiles are not dimensionally directional and may be laid in any way specified by the client.
- C. Installer may work off of previously installed material. Care must be taken to avoid damage of the tile when working from it.
- D. Use chalk to mark installation lines. Trace chalk lines using a pencil and straight edge, then wipe off chalk with a damp rag. When applying adhesive, it MUST be rolled over the line. Any gap of adhesive may result in the tile not being properly adhered.

3. Installation

- A. **Adhesive** – Install Praxis Solid Cork Flooring only with #40 contact adhesive. Use of any other adhesive will void all warranties.
- B. **Spread Rate** – 120 ft² per gallon – applied by 3/8" nap roller.
- C. **Use Of Contact Adhesive** – Contact adhesive must be applied to both the back of the tile and the sub floor. Additionally, the adhesive must be allowed to dry on both surfaces BEFORE installation. If adhesive is not allowed to dry or is not applied to both surfaces, adhesion will not occur.
- D. Materials may be cut using a sharp utility knife and straight edge.
- E. Roll contact adhesive onto tiles and allow to air dry completely. Tile may be stacked ONCE DRY so that all tiles are face up. Stacks should not exceed 12".
- F. Roll Contact adhesive onto sub-floor and allow to COMPLETELY dry.
- G. Once adhesive on both tile and sub-floor is dry, tile may be installed.
- H. The adhesive will dry to a transparent color. To verify adhesive is dry, apply slight pressure to the surface. If there is any tack or adhesive pulls from the surface, allow more time to dry.
- I. If tile does not adhere when set onto the subfloor, allow adhesive to dry for an additional 30 minutes. The use of a fan to circulate DUST FREE air is permitted to expedite the drying process.
- J. Install tiles into adhesive. Once tiles make contact with the sub-floor, the adhesive will make permanent bond preventing significant movement of tile. Solid Cork tile should be pushed against adjacent tile as the tile is laid onto the sub-floor to ensure seams are tight.
- K. **Once set into place, secure tile with a rubber mallet.**

Tip: Lining up the outside corners of the tile to the adjacent tiles and setting them first helps to keep seams tight. Set corners with rubber mallet and then press along seams with fingers for initial set.

- L. Within 10 minutes of installing material, roll in two directions using a 100 lb 3-section roller. Roll floor again 30 minutes after installation. Look for any edges or corners that are raised and hand roll.
- M. Immediately after installation, inspect floor for any raised tile edges or adhesive on the tile. Should you find any raised edges, find the cause of the problem and correct by placing a weight on the tile or by removing and re-installing tile. To remove any adhesive on the tile surface, remove with a lightly water dampened cloth. Use of any solvents can cause discoloration of the floor and should not be used. Dry adhesive can be carefully scraped from floor using a blunt scraper however this process may scratch the floor which will not be covered by the Zandur warranty.

Section III. Post Installation Procedures

- A. Floors must be covered immediately after installation with kraft paper, plywood or other protective, breathable material. Do not cover uncured floor with plastic. Ensure that the protective covering will not scratch or otherwise damage the floor.
- B. HVAC system must maintain temperatures in jobsite for a minimum of 72 hours according to the temperature requirements in Section II.1.B. Temporary heating systems may not be used.
- C. Foot traffic is permitted on the floor after installation. Normal use of floor should be avoided for a minimum of 24 hours after installation to allow adhesive to fully cure. Floor may not be submitted to heavy point loads for a minimum of 72 hours after installation. Heavy point loads include but are not limited to ladders, moving equipment, rolling loads and high heels. Should circumstances require use of the floor in a period shorter than those specified in this section, contact Zandur.
- D. Post Installation Maintenance
 - i. Zandur recommends that all pre-finished (polyurethane) cork floors be coated with two additional coats of finish to seal the seams. Refer to document #Z609 for detailed instructions.
 - ii. Unfinished cork floors must be finished with 4 coats of polyurethane prior to use. Obtain document #Z609 for further recommendations and instructions.

Section IV. References

- A. ASTM Standards referenced below are available at astm.org or by calling ASTM at 610.832.9585. There is a charge for these documents, however they must be used as a reference as indicated above to ensure the success of the flooring installation.
 - i. F 1482-03 Standard Practice for Installation and Preparation of Panel Type Underlayment to Receive Resilient Flooring.
 - ii. F 710-98 Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.
 - iii. F1869-98 Standard Method for Measuring Moisture Vapor Emission Rate of Concrete Sub-Floor Using Anhydrous Calcium Chloride.
 - iv. F 2170-02 Standard Practice for Determining Relative Humidity in Concrete Floor Slabs Using in-situ Probes.
- B. Zandur Documents (available on-line at zandur.com or from your local distributor).
 - i. Cork Flooring Maintenance #Z602
 - ii. Polyurethane Application on Cork Flooring #Z609
 - iii. Zandur Floor Covering Warranty #Z002