



HARBINGER LUXURY VINYL TILE INSTALLATION GUIDELINE

ATTENTION

It is important to properly install your new Harbinger Flooring!

MATERIALS

Harbinger Luxury Vinyl Tile (LVT) is completely recyclable. While we are FloorScore certified, our independent emission tests prove that we exceed by 5 times the requirement needed to pass FloorScore, LEED and the CRI Green label certification. Made from 100% Virgin PVC, Harbinger guarantees that all products are Phthalate free, Phenol Free and do not contain heavy metals to assure the best indoor air quality at home and in the workplace. Harbinger LVT is suitable for all interior floor surfaces, above, on or below grade, and over concrete, wood or properly prepared existing substrates. Harbinger contributes to earning LEED® credits, and is manufactured under ISO 9004:2008 Quality Management System and ISO 14001 Environmental Management System.

TESTING AND ACCLIMATIZING

It is essential to conduct an IRH test (internal relative humidity) on all concrete floors. Results are not to exceed 85% IRH. PH testing must be performed per ASTM F2710, results not to exceed 9.9. ASTM F2170 (Standard Test Method for Determining Relative Humidity in Concrete Slab using in-situ Probes). This test method covers the quantitative determination of percent relative humidity in concrete slabs for field or laboratory test. Conduct one test for every 1,000 square feet, and one test for every 1,000 square feet thereafter to ensure concrete does not exceed 85% internal relative humidity.

It is important to note that a moisture test indicates conditions at the time of testing only, and the flooring contractor cannot be held responsible if moisture appears in the future, causing adhesive failure.

Please note that new concrete subfloors contain a high percentage of moisture and must be allowed to dry out. The drying time will depend on several conditions, such as the type of concrete used, average air temperature and thickness and location of the slab. For concrete slabs containing a high percentage of Fly-Ash in the mix please consult your Harbinger Representative.

STORAGE AND ACCLIMATIZING

During this preliminary moisture-testing period, **Harbinger Luxury Vinyl Tile** should be present at job site to allow an appropriate period for product to acclimatize. Remove material from packaging, spread out not higher than 1 box high and allow to condition in room where installation is to take place at a constant temperature of 18°- 25° for a period of 48 hours prior to installation. This temperature should be maintained during installation, and for a 24 hour period after installation.

PRODUCT INSPECTION

Prior to installation, carefully inspect material for any visible flaws. Damaged or flawed material should never be installed under any circumstances. If flaws are detected, immediately contact Bay Resource Group. Installation of material implies acceptance. No claims will be considered for material installed with visible defects.

SUBFLOORS

All supporting surfaces shall be structurally sound, solid, stable, level, plumb and true to a tolerance in plane of ¼" in 10 feet (6 mm in 3 m) for floors. They shall be dry, clean and free of dust, oil, grease, paint, tar, wax, curing agent, primer, sealer, old adhesive or any deleterious substance and debris which may prevent or reduce adhesion.

1. Mechanically sand, bead blast or scarify the substrate to completely remove all paint, loosely bonded topping, loose particles, construction debris, old adhesive and any contaminant that may prevent or reduce adhesion.
2. Remove any trace of strong acid or alkali from the substrate prior to the application of the surface product and/or the adhesive.
3. The supporting surfaces shall be dry. The moisture emission shall not exceed 85% IRH for concrete. For wood subfloors the moisture content should meet the requirements of the wood manufacturer.
4. In all cases, the structural design of floors shall not allow a deflection of more than L/360 of span under live or dead loads.

Concrete

1. Concrete substrates shall be free of sealer or curing compound. The substrate shall be cured for a minimum of 28 days and tested for moisture emission using the IRH moisture test method.
2. Concrete substrates shall be finished using a flat trowel. The surface shall be sound, true and level to a tolerance in plane of ¼" in 10 feet (6 mm in 3 m) for floors.
3. The installer shall be responsible for confirming that the Internal Relative Humidity tests results meets the recommended requirements.
4. All new concrete surfaces should be steel trowel finished. A moisture barrier with a permeability of less than 0.2 metric perms as measured according to the ASTM-96 standard must be present under concrete slabs that are on or below grade. This barrier must be resistant to deterioration as well as to puncture during construction and must remain intact and continuous.
5. Any repair to the concrete substrate shall be made using the proper surface preparation product. Where self-smoothing surface preparation material is required, the concrete shall be bead blasted or scarified. Where a fast setting screed mortar or fast setting polymer-modified premixed mortar is required, the concrete shall be scarified.
6. Neutralize any traces of strong acid or alkali prior to application of the surface preparation product or the adhesive.

Wood underlayment

1. Particleboard, strand board and flake board **are NOT RFCI-recommended underlayment** and therefore not be used as a substrate for Harbinger Luxury Vinyl Tile flooring.
2. Plywood substrate and underlayment shall be group 1, exterior grade plywood, CC plugged or better conforming to APA classification and U.S. Product Standard PS 1-95 or a select or (SELTF) COFI classified.
3. All wood underlayment shall be new and acclimated for at least 24 hours to the job site condition prior to installation.
4. When required, the wood underlayment shall be filled and patched to correct seams, cracks, indentations and other subfloor irregularities using the proper products. **Calcium sulfate/plaster/gypsum based compounds are NOT recommended.**

Old substrates

1. Existing cement terrazzo, ceramic tile, vinyl composition tile, non-cushioned mineral fibrous felt-back sheet vinyl shall be sound, solid, well adhered, flawless, stripped or sanded clean and free of dust, wax, grease, soap residue or any deleterious substance that may reduce or prevent adhesion.
2. Harbinger Luxury Vinyl Tile may be installed over a single layer of non-cushioned resilient flooring provided the following conditions have been met:
 - The existing flooring must be fully adhered and well-bonded.
 - The sub floor or underlayment that is under the existing resilient floor must meet the requirements of Harbinger Luxury Vinyl Tile.
 - Any cuts, gouges, dents or other irregularities in the existing floor and any existing embossing or texture must be levelled to prevent telegraphing. Embossed vinyl flooring shall be properly levelled to ensure adhesion. Do not install over cushion-backed, heavily embossed, or multiple layers of flooring. Installations over existing resilient flooring will be more susceptible to indentation, and there is the possibility that the existing flooring will telegraph through.
 - The responsibility of determining if the existing floor is a suitable subfloor rests solely with the installer and flooring contractor. If there is any doubt, the existing floor should be removed.
 - Any waxes or finishes must be completely removed and rinsed with clean water.
 - If existing floor has been installed over concrete, on a below grade, an IRH test must be performed for every 1000 square feet (or minimum of 3 tests). Test results must meet the requirements of both the existing floor and the Harbinger floor. Moisture tests should be conducted over an area where the existing floor and adhesive has been completely removed.

Radiant Heat

1. Do not install over concrete floors that are excessively cold or radiant-heated with floor temperatures that exceed 80.6°F (27°C). The radiant heating system must be in operation for three weeks prior to installation of the flooring. 48 hours prior to and during installation, the system must be kept at 65°F (18°C). Once the installation is completed, the heat must be gradually increased by a maximum of 5°F (3°C) per day until the desired setting is reached.
2. Cable type radiant heating must be covered with a minimum ¼" screed.

ADHESIVE

Applying Harbinger Luxury Vinyl Tile

1. Harbinger S900 vinyl floor adhesive is the only warranted adhesive. A 95% transfer to the backing of the floor covering is essential.
2. Please consult your Harbinger Representative for your particular application, especially when moisture, water and temperature fluctuations may be involved.
3. Use a 1/16" x 1/16" x 1/16" (1.5 x 1.5 x 1.5 mm) trowel and ensure 95–100% adhesive contact.

Work in small enough area to ensure that Harbinger Luxury Vinyl Tiles are laid into adhesive immediately before it skins over or dries. The adhesive working time is approximately 20 minutes under normal conditions. Position the plank at proper position in the adhesive without sliding and pressing firmly down, paying special attention to the tile edges and corners and that the ends of the planks are staggered for best visual appearance. Periodically check by lifting a tile to make sure that at least 95% of the adhesive pattern has been transferred to the back of the plank or tile. If adhesive starts to set up or skins over, scrape it up and re-apply fresh adhesive. Roll with 100 lb multi section roller within 20 minutes of application.

Harbinger Luxury Vinyl Tile installed next to each other shall be in consecutive lot numbers.

Roll each section in both directions immediately upon completing with a minimum 100 lb. Three section roller or a hand roller in smaller areas. Re-roll the entire area after one or two hours. Promptly remove adhesive smudges with a clean cloth dampened with water while adhesive is still fresh and gentle mineral spirits when dried. Be sure to test strength of mineral spirits before use to avoid damage to tiles.

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Ensure that all tiles and planks are free from general traffic for 24 hours after installation. Do not wash or polish the floor for a minimum of 48 hours after installation. The manufacturer or supplier will not be liable for any loss, damage or complaint of any kind if the specific laying procedure described in this guide is not followed.

TRANSITIONS

Install Harbinger transition and nosing with LePage PL Premium, or PL 400 adhesive or equivalent.

PROTECTION

1. Protect the floor covering installation against dirt and other trades.
2. Allow light foot traffic after 12 hours of installation and regular traffic 24 hours after completion of work.
3. Do not thoroughly wash the floor with water prior to 30 days post installation. Wipe with a damp mop during the first month to allow adhesive to cure.
4. Temperature and humidity during and after the floor covering installation will have a direct effect on the drying time of the adhesive, therefore ensure that room temperature is kept at a minimum of 65°F (15°C) and relative humidity is no more than 65% for a period of 72 hours after the completion of work.
5. Post installation temperature should be maintained between 65°F to 85°F (18.3°C to 29.4°C)
6. Avoid exposure to direct sunlight for prolonged periods. Harbinger requires the use of ultraviolet protective film, blinds, curtains or shades to assure that Harbinger products are protected from sun and are not overheated due to this exposure. This type of exposure can induce expansion which may cause buckling. Floor covering exposed to excessive heat and light is subject to thermal degradation. Flooring that cannot be protected from direct sunlight is required to be installed with adhesive. Failure to install this with Harbinger approved adhesive when such flooring will be exposed to direct sunlight voids all warranties, express or implied; the end user shall assume full responsibility for any failure of the flooring, and Harbinger shall be released from any claims, damages, or liabilities whatsoever arising out of or related to the failure to install the flooring with approved adhesive when the flooring is exposed to direct sunlight.
7. All chair casters should be checked and cleaned prior to using on the new floor. All furniture and chair legs should be clean and fitted with appropriate glides or slides to protect from damage.
8. Furniture and fixtures should be lifted for moving and set in place with appropriate protection to prevent damage

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