

## **It is important to properly install your Harbinger Flooring!**

### **MATERIALS**

Harbinger Vinyl Wood Plank is suitable for all interior floor surfaces, above, on or below grade, and over concrete or wood substrates. With a clear wear layer of 0.50mm, Harbinger Vinyl Wood Plank is ideally suited for heavy commercial environments such as retail, leisure, health and education.

Harbinger Vinyl Wood Plank is manufactured under ISO 9001:2000, Quality management systems and ISO 14001 Environmental Management System. Suitable for Recycling. Suitable for under floor heating.

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### **TESTING**

It is essential to conduct a calcium chloride test (moisture test) on all concrete floors. The test should be conducted around the perimeter of the room, at columns, and where moisture may be evident. The moisture emissions from the concrete should not exceed 3lbs / 1000s.f. /24 hrs (1.36 kg / 92.9s.m. /24 hrs).

During this preliminary moisture-testing period, Harbinger Vinyl Wood Plank should be present at job site to allow an appropriate period for product to acclimatize. Remove material from packaging, spread out if possible and allow to condition in room where installation is to take place at a constant temperature of 18°-26° for a period of 24 hours prior to installation. This temperature should be maintained during installation, and for a 24 hour period after installation.

If the concrete exceeds moisture limitations, the installation should not proceed until the problem is corrected. A moisture problem can be corrected by sealing the concrete with any one of the many brands of concrete sealers available. After the sealer has been applied, re-test to ensure that the problem has been corrected. It is important to note that a moisture test indicates conditions at the time of testing only. 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.

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## **STORAGE AND HANDLING**

During this preliminary moisture-testing period, **Harbinger Vinyl Tile flooring** should be present at job site to allow an appropriate period for product to acclimatize. Remove material from packaging, spread out if possible and allow to condition in room where installation is to take place at a constant temperature of 18°-26° for a period of 24 hours prior to installation. This temperature should be maintained during installation, and for a 24 hour period after installation.

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## **SUBFLOORS**

Harbinger Vinyl Wood Plank can be installed using Mapei Ultra/Bond G21 adhesive, it may be suitable for installation over non-porous surfaces and existing vinyl floors or used in wet use areas. Please consult your Harbinger Representative for your particular application.

1. 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.
2. 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.
3. Remove any trace of strong acid or alkali from the substrate prior to the application of the surface product and/or the adhesive.
4. The supporting surfaces shall be dry. The moisture emission shall not exceed 3lbs / 1000s.f. /24 hrs (1.36 kg / 92.9s.m. /24 hrs) for concrete. For wood underlayment, the moisture content should meet with the requirements of the wood manufacturer and/or flooring manufacturer, generally 8-10% using a "Delhmost Wood Moisture tester".
5. In all cases, the structural design of floors shall not allow a deflection of more than 1/360 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 42 days and tested for moisture emission using the anhydrous calcium chloride method. Test results shall be no more than 3lbs/1000s.f. /24 hrs (1.36kg / 92,9s.m. /24 hrs) prior to the installation of the floor covering.
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 to complete a humidity test and provide the general contractor and/or the architect with the written results prior to the execution. A humidity test has to be done at least 96 hours (4 days) prior to commencing work and the results shall not exceed 3lbs / 1000s.f. /24 hrs (1.36kg / 92.9 s.m. /24 hrs) with the anhydrous calcium chloride test.
4. All new concrete surfaces should be steel trowel finished. A moisture barrier with a permeance of less than 0,2 metric perms as measured according to the ASMT-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 specified sub-paragraph 2.1. 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 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's, therefore are not recommended for use as a substrate for Harbinger 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 (SEL TF) COFI classified.
3. The installation of wood underlayment shall comply with ASTM F499-84 standard.
4. All wood underlayment shall be new and acclimated for at least 24 hours to the job site condition prior to installation.
5. When required, the wood underlayment shall be filled and patched to correct Seams, cracks, indentations and other subfloor irregularities using the proper products. PLANI/PATCH: Fast setting cement-based polymer modified patching compound and PLANI/PATCH PLUS: Acrylic latex additive for use with PLANI/PATCH are recommended. Other types of levelers, such as 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. When installed with **Harbinger S600 adhesive**, Harbinger Vinyl Wood Plank 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 Vinyl Wood 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 with the PLANI/PATCH PLUS System and entire floor skim coated to ensure adhesion.
    - Any waxes or finishes must be completely removed and rinsed with clean water; and
    - If existing floor has been installed over concrete, on a below grade, one calcium chloride moisture test must be performed for every 1000 square feet. The results of the test 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.
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## ADHESIVES

### Applying Harbinger Vinyl Wood Plank Flooring

1. **Use Harbinger S600 adhesive approved adhesive** when applying **Harbinger Vinyl Tile over porous subfloors, such as concrete or wood.**
2. **Use Harbinger S21 adhesive when applying Harbinger Vinyl Wood Plank** over non porous surfaces and existing vinyl floors or when used in wet use areas.
3. Please consult your **Harbinger Vinyl Tile Representative for your particular application.**

4. Do not install over concrete floors that are excessively cold or radiant-heated with floor temperatures that exceed 85°F (25°C). Radiant heating should be turned off 12 hours before commencing installation.
5. Spread the adhesive with the recommended notched trowel to assure enough adhesive coverage to achieve 95% transfer to the backing of the floor covering.
  - (1/16"x1/32"x1/16" for **Harbinger S600 adhesive**)
  - (1/32"x3/64"x13/64" for **Harbinger S21**)
  - \*Trowel sizes are a guideline and may vary depending on substrate and site conditions.

Work in small enough area to ensure that **Harbinger Vinyl Tile 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 reapply fresh adhesive.

**Harbinger 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 mineral spirits when dried.

Ensure that all tile 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.

### ***Protection***

1. Protect the floor covering installation against dirt and other trades.
2. Do not allow traffic over the installation before 24 hours after work completion.
3. Do not wash thoroughly the floor covering with water before 30 days. 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 be no more than 65% for a period of 72 hours after the completion of work.

