

**GLUED-DOWN INSTALLATION INSTRUCTIONS**

*The longevity of hardwood flooring is directly related to proper installation and a lifetime commitment to appropriate care and maintenance.*

**GENERAL INFORMATION**

The site conditions in the area where the flooring is to be stored and installed must be the same as expected when the project is complete and in normal use. Wood is a hygroscopic material, which means that it has the ability to increase and decrease in moisture content, and will expand and contract in direct relation to this. Temperature and humidity levels should remain constant to avoid excessive expansion and contraction of the flooring. The room must be weather tight, with heating and air conditioning systems installed and working at a normal output. All wet trades such as plastering, screeding and emulsion paint works must be complete and dry.

**SITE CONDITIONS**

In order to maintain the quality and beauty of the flooring material, but also for personal comfort and well-being, an indoor climate of approximately 35-55% relative humidity at a temperature of approximately 20°C (68°F) should be maintained. In order to keep air humidity levels constant, especially during dry periods, an air humidifier should be used. This will prevent extreme drying of the material and excessive shrinkage. Likewise, in humid environments a de-humidifier should be used to avoid moisture increase and excessive expansion of the floor.

**SUBFLOORS** - *(Sand/cement screed, Anhydrite, Mastic asphalt, Moisture resistant/flooring grade particle board)*

Subfloors are often seen as hidden areas and hence are not prepared with the diligence they deserve. The foundation should be prepared in the correct manner so as to support the covering structure. The subfloor should be tested, before installation of the flooring material, in accordance with German standards (or similar local building codes). They must be dry, clean and even, compression and tension proof, and free from flakes and cracks. Ensure that all contaminants such as oil, grease, wax, paint, plaster and dust etc are thoroughly removed from the surface. Such substances may prevent or reduce adhesion.

Anhydrite cast floors should be sanded or brushed and then vacuumed before installation of the floor covering

With mastic asphalt floors, it is essential to remove excess or loose siliceous sand with a disk sander and vacuum with an industrial vacuum cleaner.

**MOISTURE CONTENT**

The condition of the subfloor must be checked in a professional workmanlike manner by using suitable measuring equipment in order to verify compliance with required moisture content limits. This is an obligation for the professional installer. Sand and cement concrete and screeds should be dry to within a moisture content of 2% mass. (3lbs hydrostatic pressure when using the Calcium Chloride test method) Anhydrite floors to with 0.5% mass. When installing over underfloor heating systems these figures should be reduced by an additional 0.2% mass.

*Always complete a signed record of the underfloor preparation, testing and heat-up phases. A guide to underfloor heating preparatory measures can be found on our web site and in the laying instructions enclosed within flooring cartons.*

## **EVENNESS**

All surfaces should be level to within +/- 2mm over a 1 metre straight edge (1/16" over 3 feet) and free from sudden humps or hollows. If necessary, level the subfloor with an appropriate filler or compound according to manufacturer's specification. Keep in mind that the use of levelling materials often requires the use of special primers.

## **SURFACE STRENGTH**

The surface strength of the subfloor is tested with the standard scratch test and hammer impact test (low strain method).

## **SUBFLOOR JOINTS**

Pre-determined break points such as structural movement joints should not be filled.

## **PREPARATION** - *(Component Epoxy Resin Primer or similar)*

- Priming is necessary for very absorbent or sandy cement floors
- Priming is also necessary if underfloor heating is installed within cement and anhydrite floors
- Mastic asphalt floors do not require priming but may require levelling with an appropriate filler or compound
- Two-component epoxy resin primers have a drying time of approximately 8 hours

## **ADHESIVE** - *(Flexible Glue)*

**Storage:** Store in a cool, dry place. Note: Shelf life of most adhesives is approx 12 months in unopened original containers.

**Coverage:** Approx 180-220 sqft. of flexible glue depending on absorbency of the subfloor.

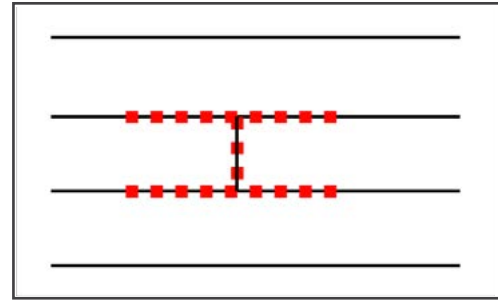
**Use:** Always follow manufacturer's instructions.

- Do not glue down if subfloor temperature is below 17°C (62°F) and/or if air humidity levels exceed 70% in the room. If necessary, heat the room and ventilate thoroughly.
- Always complete a 'glue test' to ensure adhesion and compatibility.

## **INSTALLATION**

Store unopened cartons in the area in which they are to be installed for a period of 24-48 hours prior to installation. **DO NOT STORE CARTONS IN NEW CONSTRUCTIONS, OR SIMILAR ENVIRONMENTS, DUE TO THE BUILDING RELATED RESIDUAL MOISTURE AND HIGH LEVELS OF HUMIDITY.** Open cartons just prior to use. Re-seal boards in plastic film when not in use.

**Note:** When installing using the full-area glue-down method it is also advisable to use PVAC White Adhesive around the end joints of the boards (see diagram). This 'H' bonding method provides additional stability around the end joint area thus prevents separation of the joint as a result of excessive shrinkage.



## GETTING STARTED

Begin installation from the longest straightest side of the area. Measure the width of a board and mark this on the subfloor with a chalk line. Apply flexible adhesive to the subfloor using the appropriate trowel/spreader. Initially only apply the amount of adhesive required to install the first row. Hold the trowel at 45-90 degrees to ensure the correct adhesive spread rate and formation of adhesive ridges. Place boards into the adhesive with the tongue side against wall (the groove side has the most protruding/visible joint section and should face into the room) having applied the PVAC white adhesive to the end joints. Place plastic spacers/packers between the wall and the boards to create and help maintain an expansion gap. A clear expansion gap of at least 1/2" must be left on all perimeters and against all fixed objects such as pillars, etc.

Any off cuts created can be used to start adjacent rows later, providing that the piece allows the end joints to be offset by at least 40-50cm (16-18").

Upon completion of the first row check for straightness and adjust as necessary. Use wedges or packers to hold the boards in position. Install the next 2 rows in the same manner. Once tongue & groove are tightly together, the boards can be lightly pressed into the adhesive to ensure good adhesive transfer. Never use a heavy roller on the floor. This will completely flatten the adhesive ridges that are required to accommodate movement in the flooring.

Once a good start has been achieved, sufficient adhesive to install 2-3 rows can be applied in one application (depending on number of installers). Install boards row-by-row utilising off cuts to start adjacent rows.

At transitions with other floor coverings, including borders and junctions with some fixed objects, a transition moulding should be incorporated. Leave an expansion gap of at least 1/4" in the transition moulding.

Allow the adhesive to cure for minimum 12 hours after installation before subjecting the floor to traffic and load.

- Product should be left in cartons until ready to be installed
- Product doesn't require acclimation unless it is winter time. Product should remain sealed in original factory packaging for 4 days in extreme weather in the space it is intended to be installed in.
- Flexible glue is to be used for all installations.
- Adhesion test of wood flooring to substrate with flexible glue is to be done at each and every jobsite prior to installation of full floor.
- A scratch test on subfloor as well as a calcium chloride test should be done on each and every concrete subfloor.

The information provided in these guidelines is based upon experience and serves to advise the installer. The information can only be of a general nature. No liability is accepted for the success of the work since the writers have no influence on the actual execution of the work or the specific laying conditions.

October 7th, 2013