ENGINEERED FLOORING INSTALLATION GUIDE

READ THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING INSTALLATION. IN ADDITION TO THESE INSTRUCTIONS, WE RECOMMEND THAT THE INSTALLER FOLLOWS ANY ADDITIONAL INSTALLATION GUIDELINES SET FORTH BY THE RELEVANT NATIONAL WOOD FLOORING ASSOCIATION.

1. PRE-INSTALLATION CONSIDERATIONS

This installation guide involves all WOODlife 's oak, ash, douglas, walnut and elm engineered wooden flooring. WOODlife recommends qualified hardwood flooring professionals for the installation of our products.

Please be aware that some packages may be marked as 'border work'. Every WOODlife floor is custom produced. During the miscellaneous finishing operations of the floor, some individual pieces may show certain imperfections. This cannot always be avoided as wood is a natural product; each boards shows unique characteristics. Boards with imperfections are sorted out during our thorough quality control and are then packed and marked separately as 'border work'. Most of these boards can still be used during the installation though by cutting off the affected parts.

Inspect all materials carefully before installation. Warranties do not cover materials with visible defects once they are installed. The natural characteristics of wood cause variations in color, grain etc. Even though our products are inspected many times, some grading deficiencies may occur (in up to 3% of the boards).

2. INSTALLER/OWNER RESPONSIBILITY

It is the responsibility of the owner and or installer to inspect the flooring. It is the owner/ installer's responsibility to ensure the jobsite conditions plus the jobsite sub floors are environmentally and structurally acceptable before installation is started.

Prior to installation, the owner and or installer is responsible for the final inspection of materials. The installer must use reasonable selectivity and hold out or cut off pieces with deficiencies, whatever the cause. If material is doubtful as to grade, manufacture or factory finish, do not install it and contact the seller immediately. Materials installed with visible defects will not be covered by warranty.

The owner and or installer is responsible for ensuring that the proper installation conditions and appropriate sub floor surfaces meet or exceed all industry standards and/or WOODlife Flooring standards (see chapter 3 and 4). Proper installation can be affected by moisture content of the flooring, moisture content of job site, improper or lack of preparation of job site, improper or lack of preparation of all sub floor surfaces, and flooring layout. The sub floor must be clean, flat, dry and structurally sound. The manufacturer declines any responsibility for floor failure resulting from or connected with subfloor, subsurface, job site damage, jobsite environmental deficiencies or deficiencies after hardwood flooring has been installed. Use of appropriate products for correcting subfloor voids should be accepted as a normal industry practice.

As a general rule lay out 2-3 rows of product before installing. This will allow you to properly match color, grade, and length, and it will help to ensure end joints are properly aligned to the preceding row.

3. PROPER SITE CONDITIONS & STORAGE

All outside doors and windows must be in place. All concrete, masonry, plastering and other “wet” work must be thoroughly dry. The wall coverings should be in place and the painting completed. When possible, delay installation of base molding until flooring installation is complete. Basements and crawl spaces must be dry and well ventilated. WOODlife Flooring products may be installed below, on or above grade level. Crawl spaces must be a minimum of 600mm (24”) from the ground to underside of joists. A ground cover of 8mm (5/16”) polyethylene film is essential as a vapor barrier with joints lapped 200mm (8”) and taped. The crawl space should have perimeter venting equal to a minimum of 1.5% of the crawl space square footage. These vents should be properly located to foster cross ventilation. Local regulations may prevail.

4. SUBFLOOR REQUIREMENTS

The sub floor must be clean, flat, dry and structurally sound. The sub-floor must be checked for moisture content by an appropriate testing method. Test results must be recorded.

Concrete subfloor

WOODlife’s engineered flooring can be laid floating, or can be directly glued down to fully cured and dry concrete. Screed/concrete subfloors must be under 2% moisture content. Floor should be flat to within 2 mm in 2 meters (3/16" in 6,5'). Substrate should be flattened to tolerance; grind high areas and fill low areas using a high compression leveling compound (min. 2000 N/cm2 (310 N/ in2), or 20 MPa). When gluing, the consistency of the concrete should be sufficient: draw a nail across the top of concrete and if it leaves an indentation, it is probably lightweight concrete and cannot be installed using the glue down method. With light weight concrete you must float the wood flooring.
If there is no crawl space underneath the concrete subfloor of at least 50 cm (1,7’) high, the concrete that measures dry today may become moist in the future due to rising groundwater (risk on clay-like soils). Installing a moisture barrier now may be viewed as an insurance policy against concrete becoming wet in the future. This will lead to subsequent floor failure. WOODlife Flooring is not responsible for site related moisture issues. Composition floorings with an integrated under floor heating system must always be primed.

Joists on the ground floor

Crawl spaces must be a minimum of 600mm (24”) from the ground to underside of joists. A ground cover of 8mm (5/16”) polyethylene film is essential as a vapor barrier with joints lapped 200mm (8”) and taped. The crawl space should have perimeter venting equal to a minimum of 1.5% of the crawl space square footage. These vents should be properly located to foster cross ventilation. Local regulations may prevail.

Wooden subfloor

Wood sub-floors must be secured with screws or should be nailed. Nails need to be ring shank and screws must be counter sunk. In the event that the wood sub-floor is less than 2 cm (3/4’’) thick, add a single wooden cross layer with a minimum thickness of 8 mm (5/16’’) for a total of min 2,5 cm (1’’) of thickness in order to combat possible squeaking after installation. The wooden crosslayer can consist of solid boards or wood sheets (particle board, OSB or plywood) and should be screwed to the subfloor. When using sheets, leave 3 to 6 mm (1/8" to 1/4") between the sheets to allow for expansion.

Floor should be flat to within 0,5 cm in 2 meters (3/16" in 6,5'). When gluing, there must be no oil, existing adhesives, wax, grease, urethane, dirt, varnish, paint, etc. on the wood subfloor. Particleboard is not a possible sub-flooring option for nail down installation but is sufficient for a glue down installation. Wooden subfloors should not measure over 12% moisture content.

Tiles (travertine, granite, glazed tiles, slabs, marble)
WOODlife Flooring can either be installed floating or can be glued straight on top of the tiles.
Floor should be flat to within 0,5 cm in 2 meters (3/16" in 6,5'), see images on the previous page. When gluing, there must be no oil, existing adhesives, wax, grease, urethane, dirt, varnish, paint, etc. on the tile subfloor. Always clean the tiles with a caustic soda; never treat the tiles with ordinary soda, thinner or ammonia. Loose tiles should be removed; holes filled with a high compression leveling compound. Finally, slightly sand the tiles with grain 16 or 24. In case of shale or slate there are specific regulations; contact your seller for a more detailed advice.

Fermacell (and plaster fibre board)
Glue down method or floating installation. Due to the high density of the fermacell subfloor the bonding of the adhesive can be problematic. Therefore, slightly sand the fermacell with grain 16 or 24. Vacuum clean the subfloor until it is free from dust and apply a primer coat. When the primer is dry, your WOODlife Flooring can be glued with a parquet adhesive that matches the primer. Optionally, WOODlife can supply the proper primer and matching adhesive. Failure to the requirements above could cause ongoing behavioral problems with the floor and will invalidate the warranty.

5. SUBFLOOR AND INSTALLATION METHOD

Installation method Subfloor	Floating	Glue down	Screw down	Nail down
Concrete	OK	OK	**X**	**X**
Joists	**X**	**X**	OK	**X**
Wooden boards	OK	**X**	OK	**X**
Wooden particle board	OK	OK	OK	OK
Oriented Strand Board (OSB)	OK	OK	OK	OK
Plywood	OK	OK	OK	OK
Tiles	OK	OK	**X**	**X**
Fermacell	OK	OK	**X**	**X**

All WOODlife floors can be floated, yet we always strongly recommend to fully glue down your WOODlife floor. Gluing down the flooring minimizes risk caused by expansion and shrinkage of the wood, such as gaps, cupping, bending, etc.

6. INSTALLATION TOOLS

An appropriate flooring adhesive: WOODlife PE90. On concrete slabs that are on/below grade, we strongly recommend to primer the slab first with a moisture inhibitor. When using other flooring adhesives, we advise you to contact your local WOODlife Flooring dealer. Always follow the adhesive manufacturer's instructions.

For staple-down installation, you will also need:
Pneumatic stapler appropriate for 9/16" thick engineered flooring and 1-1/4" or 1-1/2" staples (always test stapler to ensure that it is not damaging the flooring or causing dimpling before proceeding with installation), air compressor.

For floating installation, you'll also need:
- → A proper underlayment and moisture barrier. Depending on the site requirements, WOODlife can supply the best matching underfloor.
- → D3 T&G Adhesive

7. JOB SITE INSPECTION

All outside doors and windows must be in place. All concrete, masonry, plastering and other "wet" work must be thoroughly dry. The wall coverings should be in place and the painting completed except for the final coat on the base molding. When possible, delay installation of base molding until flooring installation is complete. Basements and crawl spaces must be dry and well ventilated. WOODlife Flooring products may be installed below, on or above grade level. Crawl spaces must be a minimum of 600mm (24") from the ground to underside of joists. A ground cover of 8mm (5/16") polyethylene film is essential as a vapor barrier with joints lapped 200mm (8") and taped. Local regulations may prevail.

The installation site should have a consistent room temperature of 15-24°C (59-75°F) and humidity of 30-70% 14 days prior installation to allow for proper acclimation and forever after installation, to allow for proper acclimation. Room humidity should never exceed 30-80%. Due to possible shrinking or expanding it could crack, split, bow, crook or even delaminate. The sub-floor must be checked for moisture content by an appropriate testing method. Test results must be recorded.

8. STORAGE AND HANDLING

Handle and unload with care. Store in a dry place being sure to provide at least a 100mm (4") air space under bundles, which are stored upon "on-grade" concrete floors. Flooring should not be delivered until the building has been closed in with windows and doors in place and until cement work, plastering and all other "wet" work is completed and dry.
Concrete should be at least 60 days old. WOODlife Flooring products must be stored in the environment in which it is expected to perform for at least 72 hours prior to installation. Packs are to be kept closed.

9. SUBFLOOR PREPARATION AND RECOMMENDATIONS FOR ALL INSTALLATIONS

Concrete subfloors
New concrete slabs require a minimum of 60 days drying time before covering them with a wood floor. They must be fully cured. Concrete subfloors must be dry (moisture content lower then 2%), smooth and free of structural defects. Grinding high spots in concrete is recommended over using filling compounds. However, if a filling/leveling compound is used, it must be min. 2000 N / cm2 with a high compressive strength. Concrete must be free of paint, oil, existing adhesives, wax, grease, dirt, sealers, and curing compounds. These may be removed chemically or mechanically, but do not use solvent based strippers under any circumstances. Residual solvents can prohibit the satisfactory bonding of flooring adhesives. It is important to ensure a proper bond between the adhesive and the concrete and the planks. WOODlife Flooring products may be installed on grade, above grade, as well as below grade where moisture conditions do not exist.

Below grade?
A concrete slab is considered below grade when any part of the slab is below ground level, for example, walk-out basements are below grade! Treat with a primer first in order to create a moisture barrier.

Wood subfloors
Wood subfloors need to be well nailed or secured with screws. The wood subfloor needs to be structurally sound (meaning subfloors without loose boards, vinyl, tiles, or OSB board or plywood) and dry. They should not exceed 10% moisture prior to installation. Wooden subfloors must be free of paint, oil, existing adhesives, wax, grease, dirt and urethane, varnish etc. Underlayment grade OSB (not the wax side) is also a suitable subfloor. Particleboard is not an acceptable subfloor for staple or nail down installation, but can be used as a subfloor in glue down installations. When installing over existing wood flooring, install at 90 degree angles to the existing floor.

10. PREPARATION

Remove all transitions and wall-base and undercut all door casings with a hand or power jam saw using a scrap piece of flooring as a height guide. Whether you choose to install the floor by the glue down method, nail or staple down or floating, start by cutting four to five planks in random lengths, differing by at least 400mm (16”). As you continue working across the floor be sure to maintain the 400mm (16”) minimum between end joints on all adjacent rows. Never waste material; use the left-over pieces from the fill cuts to start the next row or to complete a row. Note: when installing be sure to blend the wood from several cartons to ensure a good grain and shading mixture throughout the installation. Allow for a 15mm expansion gap all around the room.

11. GLUE DOWN INSTALLATION GUIDELINES

Under floor heating and cooling
For instructions we refer to our separate brochure Underfloor Heating & Cooling, which is available on our website under the download section.

Step 1 – Layout the job
Select a starter wall. We recommend that you start in a corner of the room which is immediately visible when entering the room. Where possible, lay the flooring at 90° angle to the floor joists. Now, lay out the first two rows of boards with the groove of the length facing the wall. Usually, the panels are laid lengthways in the house (in the direction of the light). Check if the wall is perfectly straight (e.g. by tensioning a rope along the length) and place spacers. Please make sure to keep an expansion gap of around 15 mm along walls and other objects. At the head ends of the boards an expansion gap of app 5 mm would be sufficient. Now check whether the first row is fully straight by tensioning a rope along the length

Step 2 – Spreading the adhesive
Using the recommended trowel at a 45° angle to get the correct adhesive spread rate to insure a proper and permanent bond. Improper bonding can cause loose or hollow spots. Working in small sections is helpful as it will allow you to reach across the adhesive to install the wood flooring without putting any weight on it and will ensure proper transfer of the adhesive to the wood flooring. Note: Change the trowel every 185 (2000 ft2) to 275m2 (3000 ft2) due to wear down of the notches. This assures you always get the proper adhesive spread rate.

Step 3 – Install your starter rows

Install the first rows of starter planks and secure into position. Check if the rows are installed straight (tensioning a rope) and adjust the spacers to modify. Once the starter rows are secure, continue with the installation. Never lay planks further than you can comfortably reach. Place tongue into groove of planks and press firmly into adhesive. Never slide planks through adhesive. Test for proper bond by occasionally lifting a board and looking for good adhesive transfer (90%), then replace it into the adhesive. Clean any adhesive off the surface of the boards before it cures. Use caution when using a rubber mallet to butt material together, as it can burnish the finish and cause marring. Note: never work on top of the flooring when installing with the glue down method.

Step 4 – Job completion, Final touches

Once the last row is installed, allow the adhesive to dry overnight or per manufacturers instructions. Install the proper trim molding at the doorways for transition and skirting along the walls to cover the expansion space.

12. NAIL DOWN AND SCREW DOWN INSTALLATIONS

WOODlife flooring products may be installed over wood subfloors using nailing cleats. When installing WOODlife Flooring products by nailing, it is necessary to use the proper type of flooring nailer and gage of cleat. The flooring nailer must be adjusted to insure the cleat penetrates the board at the point of the 90° angle formed by the tongue (insertion point). Use a scrap piece of flooring to adjust the nailer before beginning installation. If you are using a pneumatic nailer set the compressor to the recommended pressure. Test by driving a few fasteners, check and adjust the pressure to insure the fasteners are properly seated but are not driven so deeply to split or break the tongue.

Step 1 – Layout the job

Select a starter wall. We recommend that you start in a corner of the room which is immediately visible when entering the room. Where possible, lay the flooring at 90° angle to the floor joists. Now, lay out the first two rows of boards with the groove of the length facing the wall. Usually, the panels are laid lengthways in the house (in the direction of the light). Check if the wall is perfectly straight (e.g. by tensioning a rope along the length) and place spacers. Please make sure to keep an expansion gap of min. 15 mm along walls and other objects. Now check whether the first row is fully straight by tensioning a rope along the length. Install a moisture barrier. This will retard moisture from below and may help prevent squeaks. Keep in mind there is no complete moisture barrier system for nail down installations.
Install the moisture barrier parallel to the direction of the flooring and allow a 75mm (3”) over run at the perimeter. Make sure each run overlaps the previous run by 150mm (6”) or more. Staple the moisture barrier to the subfloor to prevent movement.

Step 2 - Beginning installation

It may be necessary to scribe the starting row to maintain the expansion space for walls that are out of square. Counter sink the nails and fill with a filler that blends with the flooring installed. When possible, place the nails in a dark grain spot in the board. Next, blind nail the starter row at a 45° angle through the tongue. It will be easier if you pre-drill the holes in the tongue. Nail 25-50mm (1”-2”) from the ends and every 200-250mm (8”-10”) along the sides. It will be necessary to blind nail the next row. An 18 gauge finish nailer with 38-50mm (11/2”-2”) brads can also be used to blind nail and no predrilling is needed. Continue the installation using the recommended engineered wood flooring nailer and cleats.

Step 3- Job Completion, Final touches

The final 1-2 rows next to the wall will have to be nailed by hand or with the finish nailer. The last row must be face nailed. It will need to be ripped and possibly scribed to maintain the 15mm (5/8") expansion space. When possible, place the nails in a dark grain spot in the board and countersink and fill with matching filler. Install the proper trim molding at the doorways to achieve the transition and place skirting along the walls to cover the edges of any gaps along the wall due to irregularity.
WOODlife Flooring products can be nailed/screwed directly over joists, provided that the joists are not further apart than 400mm (16") center to center.

13. FLOATING INSTALLATION

Step 1 - Subfloor preparation:

As part of your sub floor preparation, remove any existing base, shoe mold, or doorway thresholds. These items can be replaced after installation, but should be replaced in such a way to allow at least 15mm (5/8") expansion space around the perimeter of the room and at all vertical obstructions. All door casings should be notched out or undercut to allow 15mm (5/8") room for expansion and to avoid difficult scribe cuts. This is easily done by placing a piece of board on the sub floor as a height guide for your hand saw. Install a moisture barrier over the subfloor. Install the moisture barrier parallel to the direction of the flooring and allow a 75mm (3") over run at the perimeter. Make sure each run overlaps the previous run by 150mm (6") or more. If using, install resilient underlayment parallel to the moisture membrane, following manufacturers instructions. Note: Some resilient underlayment contain a built-in moisture barrier, eliminating the need for a separate moisture barrier.

Step 2 - Layout the job

Once the moisture barrier and the resilient subfloor underlayment (if used) have been installed over the subfloor, the jobsite is ready for the WOODlife floorboards. Never open the bundles until ready to start the installation process. At the starting wall establish a 15mm (5/8") expansion space along side and end walls with the use of spacers. Now, lay out the first two rows of boards with the groove of the length facing the wall. Usually, the panels are laid lengthways in the house (in the direction of the light). Check if the wall is perfectly straight (e.g. by tensioning a rope along the length) and place spacers.

Step 3 – Installation, side and end gluing

The WOODlife floorboards must be side and end glued using PVAC glue. Fully apply a glue line at the bottom of the groove. Also fully glue every end joint. The subsequent rows are installed, side and end glued, tap together with a hammer and tapping block to prevent damage to the protruding tongue. The tapping block should be against tongue only. Use only the flat side of tapping block against tongue. Do not tap on groove side of the boards as this will cause damage! Check for tight fit on sides and ends. Stagger 400mm (24") between end joints of adjacent board rows. End joints should not repeat visually across installed floor.

Step 4 - Installing the last row, Final touches

Most often the last row does not fit in width. When this occurs, follow this simple procedure: lay a row of boards, unglued, tongue toward wall, directly on top of last installed row. Take a short piece of board with the face down and the tongue side against the wall. Draw a line with a pencil along the row moving down the wall. The resulting line gives the proper width for the last row which, when cut, can then be wedged into place using a pry bar. Make sure when the installation is complete that spacers are removed (24 hours after installations) and the expansion space is covered with an appropriate molding. Always attach the trim to the wall or vertical object and never to the WOODlife floorboards.

14. LARGE SURFACE AREAS

Expansion joints in Building structure

For both glue down and nail down installation in projects with large surface areas it is always advised to accommodate the expansion joints in the building structure by allowing the same expansion space in the flooring. This space may be covered with a T- molding or filled with a flexible sealant.

Layout and Expansion space for floating installations

When the flooring area exceeds 10 meters (33') in width and/or 30 meters (100') in length, additional expansion space must be incorporated into the field, as well as at the perimeter and all vertical obstructions. Always allow 6.5mm (¼ ") expansion for every 3 lineal meters (10') of flooring in either direction, but never less than 15mm (5/8"). Example: 9 meter (30') x 9 meter (30') room requires 19.5mm (3/4") expansion at all edges.