



GREENWOOD FLOORING INTERNATIONAL

Greenwood Flooring International Longevity Collection Installation Instructions

READ ALL OF THESE INSTRUCTIONS THOROUGHLY BEFORE BEGINNING INSTALLATION. IN ADDITION TO THESE INSTRUCTIONS, WE RECOMMEND THAT THE INSTALLER FOLLOW ALL INSTALLATION GUIDELINES SET FORTH BY THE NATIONAL WOOD FLOORING ASSOCIATION (WWW.NWFA.ORG). WHERE THESE INSTRUCTIONS DIFFER FROM NWFA GUIDELINES, THIS DOCUMENT TAKES PRECEDENCE.

PRIOR TO INSTALLATION

Hardwood flooring is a product of nature and its inherent beauty stems from the fact that each piece is unique. Due to the fact that this flooring is a product of nature, the installer and/or owner, have the following responsibilities:

1. Understanding how the floor will look once installed – the installer and owner must meet prior to installation to review:

How was the floor chosen? Review the control samples (the samples from which the floor was chosen), and compare these to the actual flooring batch onsite prior to installation to make sure it meets the owner's expectations as to:

- I. Grade – is it the correct grade? Also grade from batch to batch may vary slightly so make sure the owner is happy with this batch of flooring you are about to install.
 - II. Color/graining - do certain dark/light pieces or wild grained planks need to be graded out to meet the owners expectations?
 - III. Color variation, batch to batch – inspect the production run of flooring you received and make sure it meets your expectations. Wood from different regions can have varying colors and grains and differ from the samples from which the floor was chosen. Tint colors may also vary slightly batch to batch. Make sure the owner will be happy with the batch they received.
 - IV. Color change - do they understand how the wood will change its color over time? The owner may have chosen their floor from samples that have aged so they need to understand in advance of installation the color change to be expected in this wood.
 - V. Finish issues:
 - Is the gloss correct?
 - Does the look of the finish meet the owners expectations?
 - Does the owner understand that the finish will scratch and wear and that care must be taken during installation, move-in and in-use?
2. Installer responsibilities during installation:



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- I. Receive the floor and make sure it is as ordered and meets the owner's expectations.
 - II. Test the subfloor and relative humidity on site to make sure the flooring will perform satisfactorily on this installation.
 - III. Follow these installation instructions.
 - IV. Grade out any pieces with visible defects and stop the installation in case a reoccurring problem should be found, (over the 5% allowed by industry practices). **DO NOT INSTALL** pieces with visible defects.
3. Keep a permanent job record – relative humidity on site, temperature, and flooring and subfloor moisture content must be recorded.
 4. Make sure the owner understands that wood and water, (as well as wood and overly dry conditions), do not mix as wood flooring is a natural material and will shrink/move when over-dried and will expand, delaminate, warp and buckle/cup when over-wetted.
 5. Make sure the owner understands how to maintain the floor.

WARNING: Our flooring is well manufactured and is designed to perform within the typical residential environment. We are not responsible for site conditions, as we do not control them. Only you, the installer can test and correct for too dry or too wet site conditions prior to installation. Note: Wood flooring installed in areas where the relative humidity is below 35% may cup, shrink in width/length, or crack and in these dry conditions a humidifier is necessary to bring relative humidity above 35%. Flooring installed on top of wet sub floors may crown (and then cup), swell (and then shrink), buckle, telegraph, or edge/tip raise. Flooring that is soaked from above will do the same.

DO NOT INSTALL THIS FLOORING ON WET SUBFLOORS OR IN OVERLY DRY CONDITIONS without first correcting any deficient conditions.



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Typical Installation Tools Needed

FOR ALL INSTALLATION METHODS:

- Hammer
- Keyhole saw
- **Carbide tipped saw blades or diamond tipped saw blades (for example from DIABLO)**
- Angle
- Pencil
- Tape measure
- Wooden wedges (spacer wedges)
- Possibly a drill/electric saw
- Flooring underlayment (for example material made of polyurethane)
- Possibly polyethylene film 0.2mm (damp-proof moisture barrier) / 6-mil vapor barrier

Preparatory Measures

The packages must be acclimatized before you open them. Store them unopened for approx. 48 hours (in winter 3-4 days) in the center of the room you want to work in. Do not store the packages in front of damp or freshly-wallpapered walls. Before you install the flooring, outer doors and windows must be installed and all painting and varnishing work must be finished. The room temperature must be approx. 20°C / 68°F (at least 15°C / 59°F), and the relative humidity must be approx. 35 – 60 percent.

Before installation, check all planks in daylight for any recognizable faults in color and structure. Goods already installed cannot be claimed for later.

Please note that wood is a natural product. Deviations are a sign of its natural and genuine qualities. When you mix planks from different packages, set out the pattern you want for the flooring area before you lay them.

A generously-planned clean-run zone in the entrance area protects the floor from rough dirt and becoming dirty quickly. To protect the flooring from scratches, you should also fit chair and furniture feet with felt sliders. Office chairs, mobile containers etc. on castors must have soft, standard running surfaces. We recommend protecting the floor in these heavy wear areas with appropriate floor protection mats (e.g. polycarbonate mats).

The hardwood flooring requires a continuous room climate with approx. 35 – 60% relative humidity and a room temperature of approx. 18 – 22°C / 64-74°F. If you measure or anticipate a significantly lower humidity, you must install a humidifier (vaporizer) to prevent the hardwood flooring from drying out



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excessively.

Subfloor Requirements

All subfloors must be clean, dry, structurally sound and flat. Any unevenness greater than 2 millimeters over the length of 1 meter (within 3/16" in 10' and/or 1/8" in 6') must be evened out. It is vital that you use underlayment to smooth small unevenness in the base floor.

The residual humidity, measured using the CM method, of mineral substrates must be no more than 2 percent (1.8 percent for underfloor heating) and that of anhydrite screeds must be a maximum of 0.5 percent (0.3 percent for underfloor heating).

All subfloors must be tested for moisture content according to NWFA guidelines.

Polyethylene film 0.2 millimeter thick (6-mil vapor barrier) must be laid out to form on all screed or concrete subfloors as a vapor barrier. The strip edges must overlap by at least 20 centimeters (8") or the overlapping edges must be glued.

The hardwood flooring can be laid on existing surfaces, such as PVC, linoleum or stone, so long as the flooring is firmly bonded and there are no loose areas. In addition, a separating layer of foil should be applied to the substrate. On existing wooden planks, wood-based boards, OSB-boards, drywall elements etc., no polyethylene film must be laid out as a vapor barrier.

Plywood subfloors must meet local building code requirements. They must be secured to the joist, free of squeaks and protruding fasteners. Subfloor moisture content must not exceed 10% and the variance in moisture content between the subfloor and the flooring boards must not exceed 3%.

Textile flooring such as, e.g. carpet or needle fleece must be removed not only for technical reasons, but for hygienic reasons too.

Radiant heat: Use only floating installation over radiant heat. Follow the instructions of the manufacturer of the heating system carefully and make sure that the temperature at the surface of the subfloor does not exceed 80°F (27°C).

General Information

Due to the high self-weight of the floor and the use of good underlay material, a good walking noise reduction is already achieved. Therefore, we recommend the floating installation without glue.

The »click« connection MASTERCLIC PLUS enables you to work quickly and securely. The plank is slotted into place by laying the next row. Furthermore, it also represents a valuable installation aid.

The planks can be interlocked on the long side. However, it is easiest to join the tongue in the groove. The plank to be laid is lifted slightly and turned against the already laid plank (A).

If the floor area to be covered is longer or wider than 10 meters (33 feet) an expansion joint must be provided. This is covered with a transition profile. This also applies in the area of doors, throughways and angular rooms. Two adjacent rooms must be separated with a transition profile. Use the jointing profile to adjust to adjacent, lower areas or floorings. The end profile is ideal for clean finishes in front of higher, adjacent thresholds, tiles, or other risings. Stairs are given a clean finish with the stair edge profile. An adequate distance must be maintained in the area of doorframes or the wooden doorframe shortened. To this end, place a loose plank with the wear layer side downwards against the doorframe and saw the



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doorframe off along the plank.

FLOATING INSTALLATION INSTRUCTIONS

Check first, whether an underlay is required, as described under »Subfloor requirements«. For hardwood flooring without cushioning layer please use a flooring underlayment.

When sawing the elements, make sure you work from the correct side: if you use a bench saw, keep the decorative side facing up, if you use a keyhole or portable circular saw, keep the decorative side down.

Hardwood flooring will expand and contract with changes in ambient temperature and humidity. To allow for this, during installation leave a 15 millimeter (1/2" to 5/8") or 1.5 millimeter expansion space per meter around the entire perimeter of the floor between the flooring and the walls. Also leave a 1/2" to 5/8" expansion space where the flooring will meet any vertical obstacle, such as stairs, pipes, door sills, tiles, cabinets, etc.

Start by laying the first complete plank in the left-hand corner of the room with the tongue sides facing the wall. Remove only the tongues on the long sides of all the other planks you want to lay in the first row (Fig. 1). Using wedges, you can easily keep a gap of at least 15 millimeters (1/2" to 5/8") from the wall.

Insert the end of the next complete plank into plank no. 1 (Fig. 2). Lay the other planks in this row in the same way across the entire width of the room.

Cut the last plank in each row so that you leave a gap of at least 15 millimeters (1/2" to 5/8") to the wall (Fig. 3). You can use cut-off pieces of planks, as long as they are at least 40 centimeters (16") long, to start subsequent rows.

1. Make sure the planks in the first row are straight. Cut the first plank in the second row to approx. 80 centimeters (32").
2. Fix this plank upright with the spring as far as possible into the groove on the groove side of the previous row of planks and press the plank down slowly, using a forward and downward turning motion (Fig. 4). The plank should lock into the previously laid row (Fig. 5).
3. Similarly, the next complete plank is turned into the click connection on the long side and the end pushed tight against the previous plank before it is lowered. Then press the plank down slowly, using a forward and downward turning motion (Fig. 6). The plank must lock into the row previously laid and the end joint must fit tightly into the previous plank.



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4. Lay the flooring row by row in this way. Remember that the end joints must be offset by at least 40 centimeters (16") (Fig. 7).
5. To cut the last row to size, use a spare piece of plank and draw the remaining plank width on it (leaving at least a 15-millimeter (1/2" to 5/8") (gap to the wall).
6. Taking the plank marked for width, push the plastic end tongue forward out of the end groove with the aid of a spare piece of plank (Fig. 8).
7. Begin cutting the plank to size at the end of the plastic tongue (Fig. 9). After the plank has been cut to size, push the plastic tongue on the end back into the end groove (Fig. 10).
8. Begin laying the last row in the right-hand corner of the room (leaving at least a 15-millimeter (1/2" to 5/8") gap to the wall) and angle the sides of the plank into the second-last row. The next plank is pivoted in the same way and lowered down at the end (Fig. 11).
9. Push the plastic tongue which is pointing out towards the wall (Fig. 12) back into the end connection using a tension rod, scraper, screw driver or similar (Fig. 13).
10. Finally, remove the wooden wedges from around the walls. To cover the all-round expansion joints, use skirting boards or base or quarter round moldings.

Please ensure that no silicon products whatsoever come into contact with the moldings.

To take a plank row back out again, lift the entire row, levering it at the side out of the last row (Fig. 14).

Then you can separate the planks' ends by angling them (Fig. 15). Should you wish to reuse the disassembled planks, you should push the end plastic spring flush back into the top groove.

GLUE DOWN INSTALLATION INSTRUCTIONS

1. If possible, use an outside wall as the starting point. Measure out from the starting wall the width of the flooring plus the appropriate expansion space for that thickness of flooring. Mark two points toward each end of the starting wall and snap a chalk line along the full length of the wall through the marks.
2. Install backer boards as guides along the wall side of the chalk line. Anchor the backer boards in place with screws or finish nails. Over concrete subfloors, anchor the backer boards with concrete screws or concrete nails. These boards will be removed later.
3. Lay the first row of flooring, but do not glue into place. Align the tongue side of the flooring boards against the backer board. Dry lay the next two rows of flooring in place, sliding the tongue into the groove. End joints should be staggered at least 8". Pull the rows of flooring boards out away from the backer board approximately 24" to allow the glue to be spread.
4. Trowel spread the adhesive on the subfloor along the backer board wide enough to allow the first three rows of flooring to be installed. Follow the adhesive manufacturer's recommendations for wet lay times before proceeding to the next step.
5. Install the first row of flooring, pressing the tongue to the backer board. Slide the tongue of the next row of flooring into the groove of the first row and continue until the first three rows are



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done. If tape is needed to keep joints tight until the glue sets, be sure to remove it within 20 minutes of application.

6. Trowel spread adhesive and continue the installation across the room. Trim the last row of flooring to maintain the minimum expansion space at the far wall. Be careful not to move the installed flooring out of position. Some boards may need to be tapped or pulled into place with a tapping block or pull bar.
7. Most adhesives require that the installer clean the adhesive off the flooring boards during the installation. Follow the adhesive manufacturer's recommendations for this procedure.
8. Once the room is finished, remove the backer boards at the starter row.
9. Dry lay the first row of flooring to replace the backer board. Trowel spread the adhesive on the back of the flooring boards (not on the subfloor) and install the flooring, sliding the groove onto the tongue of the already installed starter row. Doorways and other openings may require installation of the flooring the same way. Slide the flooring boards under the previously cut door trims and casings.
10. Complete the installation by reinstalling or installing new base moldings.
10. Do not allow foot traffic on the floor for 24 hours after installation is complete.

CARE INSTRUCTIONS

The hardwood flooring should never be left damp or wet over a longer period of time. Standing water and puddles should be avoided. Steam cleaners are not suitable for use on this flooring. Do not use scouring powder or liquid, as these can damage the surface of the flooring.

One of the great advantages of prefinished sealed hardwood flooring is that it is easy to care for. The matte UV finish surface is easy to clean. Light dirt can be brushed away or removed with a dry vacuum cleaner. Heavier dirt can be wiped from the floor with a damp cloth using standard hardwood cleaner mixed with water.

Greenwood Flooring International wants every customer to be happy and satisfied with their floor purchase. If there are claims or questions, or in the event that you are not totally satisfied with your hardwood floor, contact your local retailer first. If the retailer is unable to answer your questions, you may contact Greenwood Flooring International Flooring at the following address:

ATTN: Customer Service, Greenwood Flooring International

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