

PUREGRAIN RENEW

INSTALLATION INSTRUCTIONS

Engineered Floors LLC® ("EF") requires all vinyl flooring supplied by EF be installed according to our most current installation instructions in order to maintain full product warranty coverage. The most current installation documents and videos can be found online at www.engineeredfloors.com. Instructions on replacing damaged plank as well as maintenance and warranty documentation are also available online. Best practice is to have the flooring installed by professional installation technicians. Keep the original sales receipt as proof of purchase, all moisture/relative humidity testing, and date/installers receipt for warranty purposes. EF requires that the PureGrain Renew flooring be maintained according to our most current care and maintenance guidelines. Please contact hstechservice@engineeredfloors.com or 866-706-9745 option 7 for any additional questions not covered in this document.

GENERAL INFORMATION

- PureGrain Renew is an interior product and must be installed in an acclimatized (temperature controlled) environment.
- The temperature and Relative Humidity must be maintained before, during, and after the installation.
- EF requires the HVAC be a permanent system and operational a minimum of 7 days prior to installation.
- Acclimate material a minimum of 48 hours (96 hours in very dry/humid climates) prior to installation in the room/location where the installation will take place. The installation space must be maintained between 65 - 85 °F (18° - 29°C), ambient Relative Humidity range of 35-65%, and a subfloor temperature of at least 59° during product acclimation. Do not store directly on concrete, allow for air circulation.
- Do not open the cartons but spread them out and protect corners from damage.
- Install cabinets and/or permanent 'islands' prior to installing flooring. Do not install cabinets, islands and such on top of floating flooring.
- When ordering flooring, order 5% more footage than the measured space to receive flooring. Where numerous angles or obstacles exist, more than 10-15% overage may be necessary.
- It is recommended to keep a minimum of one carton for future repair, replacement or for testing purposes.
- Inspect all flooring. Confirm the product to be installed is the correct style and color. Do not install flooring that is not the correct style and color or that is from multiple production runs. Do not install damaged or defective flooring. EF will not be liable where incorrect flooring, damaged flooring, or flooring with visible defects is installed.
- Regardless of new construction or remodeling projects, keep flooring stored in rooms that are not being worked in and only install product after all other trades have completed work that could damage the flooring.
- PureGrain Renew flooring should not be secured to the subfloor with adhesive, nails, or fixed items that can prevent the product from expanding and contracting (heavy objects, aquariums, safes, etc.)
- When properly installed, this flooring is waterproof from topical moisture and secures the flooring on all four sides. However, excessive moisture in the subfloor could promote mold, mildew, and other moisture related issues by trapping moisture emissions under the flooring, which may contribute to an unhealthy indoor environment.
- The final responsibility for determining if a subfloor is acceptable for installation of the laminate lies with the floorcovering installer.

TRANSITIONS

- The transitions for PureGrain Renew are color coordinating. The trim pieces will be close in color and grain but will not be an exact match to the flooring.
- Using the trim as a guide, installers will need to find the plank(s) that have a similar grain and color as the transition. These pieces will need to be put in the area where will be installed.
- The 1/2" expansion gap must be maintained between the transition and the flooring.

UNDERLAYMENT

- Laminate with attached pad – Additional underlayment is not allowed.
- Laminate without attached pad – Underlayment not required. If underlayment is used, we require a maximum thickness of 3 mm. Underlayment must have a Compressive Strength rating of $CS \geq 90 \text{ kPa} \approx 9 \text{ to } / \text{ m}^2$.

MOISTURE BARRIER

- EF requires a 6-8 mil polyethylene vapor barrier or concrete moisture sealer be used under our floating floors that are installed on concrete that is on or below grade.
- The proper application and subfloor requirements of the moisture sealer are the sole responsibility of the dealer/installer.
- EF will not be responsible for flooring failures due to subfloor moisture issues when a moisture sealer has been applied incorrectly.

POLYETHYLENE VAPOR BARRIER INSTALLATION

1. Begin at starting Wall. Roll poly parallel to the starting wall and allow the poly film to run up the wall 2".
2. Smooth out any creases or wrinkles.
3. Roll out the next run and overlap the joint a minimum of 4-6".
4. Smooth out any creases or wrinkles.
5. If adhesive strips are not present, use any waterproof clear packaging tape of sufficient width to tape the seams together.
6. Install the flooring over the poly taking care not to damage the poly.

Note: To prevent a trip hazard, do not install the poly over the entire subfloor. Roll the poly out one row at a time as needed.

REQUIRED PERIMETER EXPANSION GAP

EF requires an expansion of 1/2" (12mm) around the flooring and all fixed objects. T-moldings are required in rooms with a continuous run $\geq 50'$ (15m) in length or width. T-moldings are required in any doorways less than 32" (813mm) or in cases where the plank changes direction between rooms.

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GENERAL SUBFLOOR PREPARATION

- The subfloor must be clean, dry, structurally sound, firm, and secure. The subfloor must be flat within 1/8" in 3' (3mm/m) radius. High areas should be ground and low areas should be filled.
- All construction seams, expansion joints, low areas, grout lines, etc. larger than 1/4" should be filled to level with the surrounding surface using cementitious patching and leveling compounds that meet or exceed maximum moisture level and pH requirements. Use of gypsum-based patching and/or leveling compounds which contain Portland or high alumina cement and meet or exceed the compressive strength of 3,000 psi are acceptable.
- The subfloor should be free of dust, debris, paint, varnish, wax, grease, oils, curing agents, sealers, solvents, and other foreign matter. Any adhesive residue should be reduced to a thin well-bonded residue.
- Never use solvents or citrus adhesive removers to remove old adhesive residue. Solvent residue left in and on the subfloor may affect the new floor covering.

WOOD SUBFLOORS

- We do not require a 6-8 mil poly moisture barrier for wood subfloors. The installation of a moisture barrier on wood subfloors will not void the product warranty.
- Basements and crawl spaces should be dry. Crawl spaces must have a minimum of 18" (46 cm) clearance from the ground to the underside of the joists. The crawl space should have perimeter venting equal to a minimum of 1.5% of the crawl space square footage. A vapor barrier of 6 mil (minimum) black polyethylene film is required to cover the entire crawl space. Film seams must overlap 6" (15 cm) and must be sealed with moisture resistant tape. Where necessary local regulations prevail.
- Plywood, OSB, particleboard, chipboard, wafer board, etc. must be structurally sound and must be installed following their manufacturer's recommendations. Local building codes may only establish minimum requirements of the flooring system and may not provide adequate rigidity and support for proper installation and performance. It should have a smooth finish and be free from spring and deflection. If this requirement is not met or known, a minimum of 1/4" (6.35 mm) APA approved underlayment grade wood must be adhered to the existing subfloor.
- All fastener indentations and joints should be level and smooth. Use an appropriate patching compound as necessary.
- We do not recommend installing our PureGrain Renew over pressure treated or fire-retardant treated plywood. An additional layer of 1/4" APA approved plywood should be installed over these types of plywood.

CONCRETE SUBFLOORS (PORTLAND OR GYPSUM BASE)

- New concrete slabs must be dry and completely cured prior to installation of flooring.
- Engineered Floors requires that all concrete subfloors be tested for moisture. The moisture vapor emission rate should be ≤ 5 lbs./1000ft²/24-hr per ASTM F1869 and the internal relative humidity should be $<80\%$ per ASTM F2170. Records of the testing locations and results should be documented. Three moisture tests should be conducted for areas up to 1000 sf and one additional test, for each additional 1000 sf after the first 1000 sf.
- The pH level should be between 5 and 9.

- Do not install over concrete with a history of high moisture or hydrostatic conditions. Excessive moisture in the subfloor could promote mold,
- mildew, and other moisture related issues like the trapping of moisture emissions under the flooring,
- which may contribute to an unhealthy indoor environment. EF does not warrant nor is responsible for damage to floor covering due to moisture related issues.
- All recommendations and guarantees as to the suitability and performance of lightweight concrete under resilient flooring are the responsibility of the lightweight concrete manufacturer. The installer of the lightweight concrete product may be required to be authorized or certified by the manufacturer. Correct on-site mixing ratios and properly functioning pumping equipment are critical. Slump testing is recommended.
- Lightweight aggregate concretes having dry densities greater than 90 lbs. per cubic foot may be acceptable under resilient flooring.
- Concrete slabs with heavy static and/or dynamic loads should be designed with higher strengths and densities to support such loads.

EXISTING FLOORCOVERINGS

- PureGrain Renew can be installed over most existing hard surface flooring if it is clean, dry, flat, structurally sound and free from deflection.
- Existing sheet vinyl flooring should not be cushioned and not exceed one layer in thickness. Soft underlayment and soft substrates will compromise the product's locking ability as well as diminish its indentation resistance.
- Do not install PureGrain Renew over cushion-backed vinyl flooring, asphalt-based floors, carpet and/or carpet pad, self-adhering plank or tile, laminate or other floating flooring, or structurally- damaged concrete
- This product can be installed over existing ceramic/porcelain tile products with up to a 1/4" wide grout joint. If the grout joint width exceeds 1/4", a Portland based cementitious patching compound should be used to fill the grout joint to make it smooth with the surface of the tile.
- Properly cleanse any existing marble/terrazzo flooring using a commercial degreasing/dewaxing solution. Rinse thoroughly then dry thoroughly. Grind or abrade any highly polished or irregular surfaces.

RADIANT-HEATED FLOORS

PureGrain Renew can be installed over embedded radiant-heated floors provided the operating temperature never exceeds 85° F (29.4° C). The heating system can be hydronic or an electric mat system. These systems are installed in channels under the subfloor or embedded in concrete, thin set, or patching compound. The heating components must have a minimum of 1/2" separation from the flooring product. The radiant system should be in operation for three weeks prior to installation of the flooring to reduce any residual moisture in the subfloor. 48 hours prior to and during installation, the system should be kept at 65° F (18.3° C). Once the installation is completed, the heat should be gradually increased in 5° (2.8°) increments per day until the desired setting is reached. Where floor heat is present, be mindful that loose rugs or carpets may function as heat insulators and raise the temperature above the tolerated maximum surface temperature of 85° F (29.4° C). Contact the manufacturer of the heating system for further recommendations.

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INSTALLATION - GENERAL

- It is recommended that the flooring be installed running parallel to the longest wall and into the light source when possible.
- When installing, work from 3-4 boxes at a time for best results and overall appearance.
- Remove existing floor moldings (where applicable) and undercut doorway moldings to the thickness of the subfloor.
- Cartons should be stored horizontally on a flat and level surface with the corners protected from damage. Do not store cartons on their sides.
- A laminate cutter, table saw, compound miter saw should be used to cut the planks.

INSTALLATION - PROCEDURE

1. Carefully measure the room to determine the width of the last row of flooring. If the width is less than 2" (50 mm) excluding the tongue, the width of the first row will have to be cut to increase the last row to more than 2".
2. The tongue of the plank should face the starting wall. Make certain that the first row (tongue side) is perfectly straight to ensure subsequent rows properly align. Inspect the groove area and remove any debris that may prevent proper assembly of planks.
3. To lock the end joints together, insert the tongue into the groove at a 25° angle and rotate downward with slight pressure to keep the joint together. Continue installing planks to complete the first row.
4. Start each row with the leftover piece of the previous row if piece is a minimum of 8". Install the first plank of the next row by inserting the long edge at a 25° angle. Maintain pressure and rotate the plank downward and use the mallet and tapping block to fully engage the locking system. Insert the next plank, keeping it close to the locking system on the end joint and rotate downward. Once both pieces are installed use the tapping block and mallet to fully engage the end joint.
5. Install adjoining rows one piece at a time. Holding the plank at a slight angle, place it against the profile in the first row. Rotate the plank down to secure the length joint assuring there are no gaps along the joint.
6. If there are any gaps, we recommend using a tapping block and rubber mallet to lightly tap on the edge of the material. This will bring the plank edges tight together.
7. Continue working from left to right, row by row. Be sure to maintain the expansion space around all walls and vertical objects. To maintain a random appearance, remember to offset end joints a minimum of 8" (20 cm).
8. If the panels can't be angled to engage the joints (e.g. under a door jamb or low fitted radiator) the installer will need to shave the raised portion of the receiving edge off the installed piece by using a chisel or a small block plane. Dry fit to make sure the piece fits. Run a bead of tongue and groove adhesive on the modified groove of the installed piece. Install the piece and use a few pieces of painter's tape to hold the plank in place until the adhesive has dried and cured. The curing and setup times vary depending on the adhesive used.

INSTALLATION – WET AREAS

If the installation is to take place in an area that is susceptible to spills or liquid getting behind skirting (molding) boards, the perimeter of the room must be completely sealed. A 3/8" (13mm) or larger (depending on the expansion gap) compressible polyethylene (PE) foam backer rod should be inserted into all expansion spaces. Then the backer rod should be completely covered with 100% silicone sealant around the entire perimeter of the installation. An acrylic sealant should not be used. A small silicone bead should be applied where the molding meets the floor, creating a perimeter barrier to prevent any spills or liquids from getting underneath or behind the molding. Any fixed objects, door frames, toilets, etc. should be sealed in the same way using a 100% silicone sealant.

FINISHING THE INSTALLATION

- After all planks/tiles have been installed, remove spacers from perimeter of room.
- Installers can cover the gap between the bottom of the door jamb and flooring with a silicone caulk. Make sure the caulk does not impede the expansion space.
- Install quarter-round or baseboard molding. Molding should be of sufficient size to cover the expansion space and should be fastened to the wall, not to the flooring. Do not fasten any moldings through the flooring.
- Gaps between the bottom of door jambs and the flooring may be covered with a latex caulk.
- When moving heavy items, always carry them. Never push or pull furniture or other heavy items over DLVT.
- Use floor protectors under the legs of furniture and chairs. Use chair pads where concentrated roller traffic will occur.
- Installations in wet areas such as bathrooms should be caulked around the perimeter and around the toilet flange using a silicone caulk that remains flexible when dry to retard moisture from getting under the flooring.
- Protect the flooring from subsequent projects using a non-adhering temporary protective material such as Ram Board®.
- UV protective film, blinds, curtains, or shades must be used to assure that DLVT products are protected from direct sunlight.

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