FLOATING APPLICATIONS
INSTALLATION INSTRUCTIONS

All Owens' floors have features that minimize waste of material and time. Longer than average board lengths- up to 8' long, coupled with our precision sanding process during manufacturing, result in significantly less waste of material and time when compared to many other competitors. For optimal results, Owens Flooring recommends installation is performed by an National Wood Flooring Association certified installer.

SITE CONDITIONS: Wood is hygroscopic and will absorb or expel moisture based on environmental conditions. Gain and loss of moisture corresponds with an increase or decrease in size and occasional warping. Our flooring is 100% hardwood and is more dimensionally stable due to the multi-ply construction but not immune to these dimensional changes. For the best results it is recommended that Owens' Floors are stored in the ***controlled environment*** in which it will be installed for **5-7 days** prior to installation.

- The building should be closed in with all outside doors and windows in place. The wall coverings should be in place and the painting completed, except the final coat on the base molding. If possible, delay installation of base molding until flooring installation is complete. All concrete, masonry, framing members, drywall, paint, and other "wet" work should be thoroughly dry. Basements and crawl spaces must be dry and well ventilated.
- Exterior grading should be complete. To direct flow away from the structure grading should offer a **minimum drop of 3" in 10'**. Do not obstruct the drainage with landscaping materials. All gutters and downspouts should be in place.
- Crawl spaces must be a **minimum of 18"** (46 cm) from the ground to underside of joists. A ground cover of **6-20 mil** black polyethylene film should be installed as a vapor barrier with joints lapped and sealed with moisture resistant tape. 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. **NOTE**: Unvented crawl spaces are acceptable when following qualified local regulations.
- Owens' floors may be installed below, on ,or above grade level. Our products are not recommended for applications in areas where excessive humidity is present such as full baths, hot tub enclosures, or wine cellars. Permanent air conditioning and heating systems should be in place and operational. The installation site should have a consistent room temperature of **60-80°F** (16-27°C) and humidity of **20-55% for 14 days** prior, during, and after installation.
- **Radiant Heat Applications** must meet or exceed all of the requirements for site conditions and:
    - Before installation:
      The heating system should be run at **2/3 of maximum output for a minimum of 2 weeks** to allow any remaining moisture to evaporate, allowing to attain its final moisture content without causing damage. Three or four days before installation, the heating system must be reduced to a suitable temperature (about 18°C/64°F).
    - After Installation:
      Approximately 2 days after installation is complete, gradually (over a period of 1 week) raise the temperature of the heating system to its desired operating level.
    - Life Cycle:
      Surface Temperature of flooring should **never exceed 81°**F(27°C**). Exceeding this temperature will void any related warranty by the flooring manufacturer**. Most under-floor heating systems DO NOT have a humidification system. Add humidification as necessary to maintain humidity levels between **20-55% RH.**

SUB-FLOOR REQUIREMENTS:
The following minimum standards must be met **before** beginning the application of any Owens' floors. The sub-floor must meet the following minimum requirements. See additional requirements specific to the installation method.

- **LEVEL/FLAT** - within **3/16" in 10'** (5 mm in 3 m) and/or **1/8" in 6'** (3 mm in 2m).
- **CLEAN** – Free of debris, loose materials or materials that may release with age such as paint and dry wall materials.
- **DRY** - Check and document moisture content of the sub-floor using the appropriate moisture test. If the sub-floor has excessive moisture apply a suitable moisture mitigating product that is compatible with the adhesive being used. Contact the adhesive supplier for their recommendation and warranty

  Wood Subfloor - Wood sub-floors must **not exceed 12% RH** and there must be **no more than 4% difference** between the floor and the wood subflooring material.

  Concrete Subfloor – Concrete sub-floors must be a minimum of **30 days old** before testing begins. Concrete must **not exceed 4.5** using a Tramex Moisture Encounter meter. Calcium Chloride test results should **not exceed 3# 24hr/1000 ft^2**. In-situ probes must **not exceed 75% RH**.

- **STRUCTURALLY SOUND** – The attachment methods used for the installation of Owens' floors **ARE NOT designed to stiffen existing sub-floors**. If the sub-floor has excessive deflection before installation of the flooring it is unlikely to improve with the addition of Owens' floors. Excessive deflection may cause premature finish wear and the floor to become noisy with age.

  Wood sub-floors: Wood panels should have an adequate fastening pattern, glued and /screwed or nailed as system requires using the acceptable fastener and pattern.

  - Typical: **6"(15 cm) along bearing edges and 12"(31 cm) along intermediate supports**. Flatten any swollen or raised edges as necessary by sanding or scraping.
  - Nail or screw any areas that are loose or squeak. Replace any water damaged swollen or delaminated sub-flooring or underlayment.
  - Best results occur when the sub-floor has a **minimum thickness of 3/4".**

  Concrete sub-floors: Wood flooring cannot be mechanically fastened directly to concrete.

  - Remove all loose or broken concrete and fill/flatten as necessary using cementitious leveling materials of **3,000 PSI or more**.
  - When installing over concrete, use an adhesive with moisture barrier, or moisture mitigating underlayment.

GENERAL NOTES:

Inspect all materials carefully before installation. Warranties do not cover materials with visible defects once they are installed. It is the responsibility of the installer/owner to determine if the jobsite conditions are environmentally acceptable and the sub-floor system is acceptable for the installation of wood flooring. Owens Flooring, LLC declines any responsibility for wood floor failures or problems associated with or resulting from sub-floor/sub-surface structural or environmental deficiencies or jobsite damage after the hardwood flooring has been installed.

The following instructions comply with all recommendations as outlined in *Installation Guidelines and Methods* published by the National Wood Flooring Association (NWFA). For questions regarding additional application information contact NWFA at www.NWFA.org.

CAUTION: WOOD DUST
Sawing, sanding, and machining wood products can produce wood dust. Airborne wood dust can cause respiratory, eye, and skin irritation. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans.
Precautionary Measures: If power tools are used, they should be equipped with a dust collector. If high dust levels are encountered, use an appropriate NIOSH designated dust mask. Avoid dust contact with eye and skin.
First Aid Measures in Case of Irritation: Flush eyes or skin with water for at least 15 minutes

!WARNING!
EXISTING IN-PLACE RESILIENT FLOOR COVERING AND ASPHALTIC ADHESIVES. DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST, OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVE, OR OTHER ADHESIVE. These **existing in-place** products may contain **asbestos fibers** and/or **crystalline silica**. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the existing in-place product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require the material be tested to determine asbestos content and may govern removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings. **Owens Flooring does NOT contain asbestos.**

TOOLS & ACCESSORIES NEEDED:

- Safety glasses
- NIOSH-designated dust mask
- Broom, utility knife, pencil
- Tape measure, carpenter square
- Wood filler
- Moldings as needed
- Moisture meter (wood, concrete or both)
- Hammer or rubber mallet
- Hand saw, table saw, circular saw or band saw
- Pry bar
- Premium PVA carpenter's wood glue*
- Moisture mitigating product ** (if necessary)

* Owens Flooring recommends Franklin **Tongue and Groove Adhesive**, or equivalent.

** If concrete moisture is higher than the specification listed in SUBFLOOR REQUIREMENTS, please go the website www.Owens-Flooring.com, and click "Contact Us" to request further guidance.

Owens flooring can be installed over most structurally sound sub-floors or existing flooring materials. Wood, concrete, sheet vinyl, vinyl tile, ceramic, 1/4" commercial carpet (use no underlayment) are all acceptable sub-floors provided they meet the standards outlined in the instructions for site preparation before installation notes. The glue-down method is best suited for installations on concrete. The floating method is best suited for installations on an existing floor.

NOTE: Owens Flooring **DOES NOT recommend** the floating installation method for any **unfinished flooring.**
Owens Flooring **DOES NOT recommend** the floating installation method for **prefinish flooring under 4" in width**.

PREPARATION AND LAYOUT:

- Inspect all door casings and wall molding. Where necessary cut the moldings to allow the wood flooring to slide beneath them. This can be done with a jamb saw or by placing a piece of flooring (face down) next to the molding. Using a carpenter's saw layed flat on the flooring, saw through the casing. Remove the waste material and sweep away all debris.
- Plan the layout for the best visual appearance of the finished wood floor. Measurements must be made to allow for the width of the flooring plus **1/2" expansion space** and must allow for the width of the tongue.
- Measure across the room to identify how many ROWS of flooring will be needed. If the LAST row will require a cut board (rip) of less than 1-1/2" in width, adjust the layout plan to start with a rippedboard. Account for the rip in the next measurement.
- **If using an underlayment:**
    - Install the underlayment parallel to the starting wall and in the same direction that the Owens Flooring will be installed. Underlayment should be cut flush with the walls.
    - **DO NOT** overlap underlayment joints. Tape all joints using water resistant tape (packing or duct tape), careful not to cause any wrinkles.
    - Tape the starting underlayment row to the flooring to prevent movement. Doing so will maintain accuracy in the next step.
- Place a mark approximately **18" from the edge** of the end walls and the width of the Owens Flooring plus 5/8" to allow for expansion and the tongue. **Example:** When installing 3" Owens Flooring, place the mark approximately 18" from each end wall and 3-5/8" from the starting wall. Strike a chalk line through these two points the length of the room to the end walls on top of the underlayment. This line is the WORKING LINE.
- If the floating flooring will be installed in a kitchen, use the cabinet manufacturer's template to mark location of base cabinets (wall) and any island cabinets. **DO NOT** install floating floor under cabinets or islands. Allow **1/2" expansion space** around base cabinets (wall) and island cabinets.
- For installations with **over 20' run, add expansion space** within the floor using transition mouldings.

INSTALLATION:

OPTION: Install a sacrificial board the full length of the floor on the inside edge of the WORKING LINE to form a support for the balance of the flooring installation. Proceed below.

NOTE: Avoid walking on the floor during installation as traffic may loosen or break glue joints.

- Select the longest boards available. Work from several cartons to maintain color uniformity. Lay the boards out the length of the room.
    - Make certain that the last and final board in the row will be **at least 12" in length**.
    - The last UNCUT board must allow at least 12" between the board end and the wall.
    - If the board in the row will need to be cut less than 12" in length to complete the row, adjust the board selection accordingly.
    - Begin installation from the RIGHT corner with the tongue facing you and the long-side GROOVE facing the starting wall (or sacrificial row). The short-end GROOVE should be facing the right-hand end wall. Align the first board with the WORKING LINE.

- Select the second board. Place a **1/8" continuous bead of glue** in the *inside bottom edge* of the **END GROOVE** only. **DO NOT apply glue to the long side groove** at this time. Carefully interlock the end-joint with the first board, always maintaining alignment with the WORKING LINE.
    - Remove any excess glue from the surface with a towel dampened in warm soapy water.
    - Use blue tape to temporarily hold the end joints together. Use wedges or waste material in the expansion gap on the side and end walls (ends only if sacrificial board was used) to maintain alignment with the WORKING LINE.
- Continue installing in this manner until the first row is complete. Measure and cut to length the final board in the row allowing **1/2" expansion space** between the end of the board and the end wall.
    - Select a longer board for this cut, as the material left over will be used as a starter board later.
    - Do not use short boards that would allow waste of **3" or less** as this cannot be used later. Set the waste end aside for later use.
    - Apply glue in the end-groove and install as above.
- Select a new set of materials for the second row just as before. If the cut-off waste from the first row was **18" or longer** it can be used as the first board in the row. Stagger end joints a **minimum of 6**", or twice the flooring width for wider widths.
    - Place a continuous bead of glue along the inside bottom edge of the **END GROOVE** and the same location in the **SIDE GROOVE**.
    - Carefully align the tongue and grooves together and tighten the plank until all joints are snug.
    - Remove any excess glue as before and temporarily hold the joints together using blue tape.
    - Cut and install the final board in the row.
- Continue in this manger **until the first four rows** are completed. This four-row area is the base for the balance of the flooring installation. Prefect alignment is essential, as any variance will worsen as the installation proceeds across the room. Carefully inspect for proper alignment before glue sets. Adjust as necessary.
- Continue with the installation as above – gluing **END GROOVES** and **SIDE GROOVES**.
    - **Avoid close end joint alignment in an "H"** or "stair-step" pattern, spacing end joints a **minimum of 6",** or twice the flooring width for wider widths.
    - Use blue painter's tape to hold the side-joints together. Use wedges to hold end-joints tight.
    - **DO NOT walk on** the finished floor during installation, as this will break the uncured glue joints.
    - **DO not roll** the floor, as this will break the uncured glue joints.
- Finish the final row by cutting the boards to fit. Always allow **1/2" expansion space**.
- If a sacrificial row was used to start, remove it and replace with a row of flooring that is properly edge glued as above.

COMPLETING THE JOB:

- Remove all tape from the floor starting from the area in which thewood was first applied. Inspect for gaps, chips and glue residuewhile removing the tape.
- Remove all glue residue, touch up chipped areas and fill with the appropriate filler as necessary. Use colored latex filler for factory finished products.
- Install/reinstall all moldings and clean the floor with the appropriate cleaner. Use a premium quality cleaner for urethane wood floors if the product is factory finished.
- **DO NOT ROLL THE FLOOR**, as this will break all glue joints.
- First-use of the floor varies from one glue manufacturer to another. Generally the floor can have **light foot traffic** after the glue has cured for **8-24 hours** with **furniture LIFTED** into place **after 24 hours**.

MOLDING TYPES AND USE:

- Reducer Strip: a wedge shaped molding. Used as a transition to thinner floor covering materials. Generally overlaps edges.
- Baby threshold: a molding undercut to transition to thicker materials or for use against vertical objects where expansion is required. Use against sliding door tracks, fireplaces, carpet, ceramic tile, existing thresholds or floor to ceiling glass. Overlaps edges
- Stair Nosing: a molding undercut for use as a stair landings trim, elevated floor perimeters, and stair steps.
- Quarter Round: a molding used to cover expansion space next to baseboards.
- T-Molding: a molding used as a transition piece from one flooring to another of similar height. Overlaps edges.