

# SOLID WOOD INSTALLATION

52718-11111

READ THESE INSTRUCTIONS COMPLETELY BEFORE BEGINNING INSTALLATION.

## GENERAL INFORMATION

### ATTENTION INSTALLERS

**WARNING:** Installation of wood product may create wood dust, which is known to the state of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

**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:** In case of irritation, flush eyes or skin with water for at least 15 minutes.

**⚠ WARNING:** Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to [www.P65Warnings.ca.gov/wood-dust](http://www.P65Warnings.ca.gov/wood-dust).

Always wear appropriate personal protective equipment (PPE) which include NIOSH or OSHA approved dust masks, safety goggles and work gloves.

**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.

### IMPORTANT NOTES PRIOR TO INSTALLATION

- Prior to installation of solid flooring, the jobsite should be fully enclosed and the heating and/or air conditioning system fully operational. The thermostat should be adjusted to the expected living conditions of the owner. Flooring cartons should be opened and the flooring acclimated for 3-5 days prior to the actual installation.
- **INSTALLATIONS FOR WIDE WIDTH FLOORS:** Floors in widths wider than 3" are subject to greater dimensional change due to variations in moisture content, and may require longer acclimation times. Additionally, installers should check moisture content in multiple boards and packages to confirm equal acclimation prior to installation.
- Color uniformity of all grades will be governed by the inherent variations characteristic of the wood species.
- All crawl spaces must have 6 or 8 mil polyethylene covering entire surface of crawl space.
- Do not install over radiant heated floors.
- Do not install any product with visible defects
- Wood floors are not recommended in full bath or shower rooms.
- Marks made with permanent or ball point ink may permanently stain this floor.

### HANDLING AND STORAGE

- Flooring must be protected from adverse moisture conditions during its transportation and must be stored 4" or more off the ground in dry warehouses under conditions which will prevent a significant change in its moisture content. Flooring should be delivered to job site 3 to 5 days before installation. Open cartons and allow flooring to acclimate.

### SUBFLOOR

- Installer should ensure subfloor is nailed properly.

### CONSTRUCTION:

- a. 5/8" minimum thickness, preferred 3/4" or thicker exterior plywood installed with long edges at right angle to floor joists and staggered so that end joints in adjacent panels break over different joists. Nail at each bearing with 6d threaded or 8d common nails spaced 6" on-center along all outer bearing edges and 10" on-center along intermediate joists.
- b. 1" x 4" to 6" wide, square-edged, kiln-dried coniferous lumber, laid diagonally over 16" on-center wooden joists: the ends of all boards are to be cut parallel to the center of the joist for solid bearing. Face nail each board solidly at every bearing on the joists with two nails (7d threaded or 8d common).
- c. 3/4 inch min. O.S.B. on 19.2 inch center or less floor joists system properly nailed.

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 that 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 for instructions on removing all resilient floor covering structures.

If you have technical or installation questions please call 1-800-258-5758

### IMPORTANT HEALTH NOTICE FOR RESIDENTS OF MINNESOTA ONLY:

THESE BUILDING MATERIALS EMIT FORMALDEHYDE. EYE, NOSE, AND THROAT IRRITATION, HEADACHE, NAUSEA AND A VARIETY OF ASTHMA-LIKE SYMPTOMS, INCLUDING SHORTNESS OF BREATH, HAVE BEEN REPORTED AS A RESULT OF FORMALDEHYDE EXPOSURE. ELDERLY PERSONS AND YOUNG CHILDREN, AS WELL AS ANYONE WITH A HISTORY OF ASTHMA, ALLERGIES, OR LUNG PROBLEMS, MAY BE AT GREATER RISK. RESEARCH IS CONTINUING ON THE POSSIBLE LONG-TERM EFFECTS OF EXPOSURE TO FORMALDEHYDE.

REDUCED VENTILATION MAY ALLOW FORMALDEHYDE AND OTHER CONTAMINANTS TO ACCUMULATE IN THE INDOOR AIR. HIGH INDOOR TEMPERATURES AND HUMIDITY RAISE FORMALDEHYDE LEVELS. WHEN A HOME IS TO BE LOCATED IN AREAS SUBJECT TO EXTREME SUMMER TEMPERATURES, AN AIR-CONDITIONING SYSTEM CAN BE USED TO CONTROL INDOOR TEMPERATURE LEVELS. OTHER MEANS OF CONTROLLED MECHANICAL VENTILATION CAN BE USED TO REDUCE LEVELS OF FORMALDEHYDE AND OTHER INDOOR AIR CONTAMINANTS.

IF YOU HAVE ANY QUESTIONS REGARDING THE HEALTH EFFECTS OF FORMALDEHYDE, CONSULT YOUR DOCTOR OR LOCAL HEALTH DEPARTMENT.

- d. Baseboards should be installed so that their lower edge is slightly above the level of the finished floor, but not nailed into the floor.
- Check basement and crawl spaces: these must be dry and ventilated when strip flooring is to be installed over them. In crawl spaces a vapor barrier should be provided. Vapor barrier must be provided below subfloor on ground (6 or 8 mil. poly).
  - 3/4" solid flooring is not recommended to be installed below grade. New wood type subfloors should also be checked for moisture using a moisture meter. In general wood or plywood subfloors should not exceed 14% moisture content, with a maximum moisture variance not to exceed 4% difference between wood flooring and subfloor.
  - Check with your local distributor for your geographical variances.
  - NOTE: A concrete slab is considered below grade when any part of the slab is below ground level—for example, walkout basements are below grade.
  - Particle board is not recommended.

### SUBFLOOR FLATNESS

- Subfloors should be flat to 3/16" per 8' radius. If subfloor prep work is required, "hills" should be sanded down and "valleys" filled with an underlayment patch, developed by a reputable manufacturer for use with hardwood flooring. Do not sand sub-surfaces such as vinyl or synthetic tiles that may contain asbestos.

### GENERAL INSTALLATION INSTRUCTIONS

1. Time at which to install 3/4" solid flooring: All wet trades must be complete and dry well in advance before delivery and installation of wood flooring may begin. The building interior shall have been dried and seasoned and a comfortable working temperature (at least 60°F) should exist during the flooring installation. New wood type subfloors should also be checked for moisture using a moisture meter. In general wood or plywood subfloors should not exceed 14% moisture content, with a maximum moisture variance not to exceed 4% difference between wood flooring and subfloor. Check with your local distributor for your geographical variances.

### PREPARATION OF SUBFLOOR :

- a. Adequate and proper nailing as well as soundness of the subfloor should be ascertained. Foreign material shall be removed from the subfloor surface and swept clean.
- b. The clean subfloor surface shall be covered, wall-to-wall, with 15-lb. asphalt saturated felt. Lap the edges of this felt 4" when positioning it. Double the felt around heat ducts in the floor.

NOTE: RED ROSIN PAPER IS NOT SUITABLE FOR THIS APPLICATION

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2. Laying direction of strip flooring: flooring should be laid at right angles to the floor joists and, if possible, in the direction of the longest dimension of the room.
  3. Starting to lay strip flooring: begin laying strip flooring in a room corner with the long groove of the strips facing the wall. Provide not less than 3/4" expansion space or what will be covered by the baseboard and trim specified for the job.
  4. End joints of strip: these should be staggered to achieve the best appearance in the finished floor (Min. 6 inches).
  5. Nailing schedule for solid flooring: the first and last run of strips should be faced

nailed then counter sunk 6" apart. Continue to blind nail each succeeding row until the nailer/stapler can be used to install the flooring. All other runs to be nailed at an angle of 45° to 50° on 6" to 8" centers at the tongue, also nail within 2" of each end joint. (Minimum of 2 fasteners per plank)

6. For pre-finished be sure to check nail gun faceplate to ensure it will not damage surface finish.

7. To avoid movement in wood floors, the relative humidity should be maintained year round at 35-55% RH, TEMP 60°F to 80°F year round.

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## TOOLS NEEDED

- Pneumatic/Manual Nailer/Stapler
  - Chalk Line & Chalk
  - Electric Mitre Saw
  - Pry Bar
  - Broom or Vacuum
  - Safety Glasses
  - Wood Putty/Filler
  - Hammer
  - Tape Measure
  - Approved Floor Cleaner
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## FLOOR CARE AND PREVENTIVE MAINTENANCE

With today's finishes, maintenance of your wood floor could not be easier. Normal maintenance consists of regular sweeping or vacuuming to collect dirt and grit that can dull your finish, along with periodic use of an approved no-wax hardwood floor cleaner. For Handscraped/Distressed floors, the uneven surface may trap dirt and dust so we recommend vacuuming more often. Always vacuum thoroughly prior to the use of approved floor cleaner. Be certain the wheels of the vacuum are clean and do not damage the finish. Scrubbing machinery, power scrubbers and steam cleaners are not recommended to clean the floor.

### PREVENTIVE MAINTENANCE

Aside from those mentioned above, other steps can also be taken to minimize wear and tear and keep your floor looking new for years to come.

- DO NOT USE liquid or paste wax, oil soaps, or any other cleaners that contain silicon, lemon oil, tung oil, acrylics or ammonia. Furthermore, avoid 'home recipes' found on the internet or other sources. These products and techniques can cause your floors to become slippery, or cloud and dull the finish. Use of these and similar products can harm the performance of your floor and may also affect its re-coat ability.
- DO NOT USE A VACUUM WITH A BEATER BAR HEAD
- Use throw rugs inside and outside of entryways to prevent dirt and grit from being tracked in and scratching your finish. Rugs, mats or backings should not be abrasive to prevent scratching to the wood floor. Material should be breathable to avoid trapping moisture underneath.
- Wood and water don't mix! Never damp mop your floor. Clean up spills promptly with a soft cloth and recommended cleaning products.

- Place felt-type protectors on the bottom of all furniture and fixture legs to assist in preventing denting and scratching.
- High heels and sports cleats will likely dent, gouge or scratch hardwood floors, which is not covered by our warranty.
- Keep pet's nails trimmed and clean of dirt and debris.
- Avoid sliding or rolling heavy furniture or appliances across the floor. Whenever possible, lift the item to be moved. If it must be rolled, protect the floor with plywood or other hard sheeting to prevent dents.
- Use a humidifier/dehumidifier to maintain a consistent year round climate, keeping wood shrinkage and movement to a minimum.
- The exposure of sun, UV rays and artificial lighting accelerate the oxidation and aging of wood. This can cause the wood and/or stain to change color and/or fade over time. If possible, we recommend that you rearrange fixtures, rugs and furniture periodically to ensure the flooring ages evenly. Our warranties do not cover damage from the sun, UV rays or artificial light. Note: American Cherry and Walnut species are especially susceptible to the effect of light and may darken or lighten due to UV or artificial light exposure. These species change color more rapidly than other Domestic Species.
- Furniture casters should have wheels constructed with soft, non-marring/marketing material such as soft rubber, or covered with felt. Hard wheeled casters such as plastic, vinyl or hard rubber can mark or dent hardwood floors. Caster wheel width and diameter should comply with load guidelines.