**3/8” Solid Hardwood Flooring**

**Installation Information**

Solid Hardwood Flooring can be installed over most properly prepared subfloors, making them suitable for installation on or above grade levels where moisture conditions do not exist. See all information and installation guidelines below or contact Technical Services at 888-387-9883, Option 1.

**Caution: Wood Dust**

Cutting, sanding or machining wood products produces wood dust. While wood products are not hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200), the International Agency for Research on Cancer (IARC) and the State of California have classified wood dust as a human carcinogen.

**PROPOSITION 65 WARNING:** This product produces wood dust when cut, sanded or machined. Wood dust is considered a carcinogen by the State of California.

Precautionary Measures: Airborne wood dust can cause respiratory, skin and eye irritation. Power tools should be equipped with a dust collector. Use an appropriate NIOSH-designated dust mask. Avoid dust contact with skin and eyes.

First Aid Measures in case of irritations: In case of irritation flush eyes with water. If needed seek medical attention. If dermatitis occurs, seek medical attention.

**INSTALLER / OWNER RESPONSIBILITY:**

It is the responsibility of the installer and owner to ensure that job site environmental, sub-floor and subsurface conditions involved meet or exceed all requirements as outlined in installation instructions prior to installation. Manufacturer declines all responsibility for product performance or installation failure due to sub-floor, substrate or environmental deficiencies or jobsite conditions.

All work involving water or moisture (plumbing, masonry, painting, plastering) must be completed prior to flooring being delivered. Building envelope must be complete and exterior doors and windows installed. Exterior grading and gutter downspouts should be completed and permanent HVAC systems in operation for 14 days prior to flooring installation. Measures should be taken to protect floors from other trade work. **Do not cover floors with plastic, red rosin, felt or wax paper or previously used cardboard. Instead use a breathable material such as clean, dry, plain uncoated cardboard or Kraft paper. Inks from printed cardboard could damage the hardwood floor.** The floor should be thoroughly cleaned before covering to remove grit and debris that would damage the finish. The floor must be completely covered to eliminate uneven ambering from exposure to UV light.

Manufacturer requires Solid Hardwood products acclimate for 72 hours prior to installation. Acclimation allows flooring to achieve equilibrium moisture content (EMC) with the installation environment. All wood continually expands and contracts until it reaches moisture equilibrium with the environment in which it’s installed. As with all wood flooring, expansion and contraction will be minimized if climate control is consistently maintained year round. This is especially important with tropical species, because denser woods experience more significant shrinkage in low moisture / low humidity environments.

Room temperature should be 60 – 80°F, with relative humidity between 35 – 55%. These environmental conditions are specified as pre-installation requirements and must be maintained for the life of the product.

Building interiors are affected by two distinct humidity seasons – Heating and Non-Heating. Care should be taken to maintain humidity levels between 35-55%. **Manufacturer warranties do not cover natural expansion and contraction which results in separation between planks, or damage caused by excessively low or high humidity.**

**Heating season – Low Humidity, Dry.** All heating methods create dry, low humidity conditions. Humidifiers are recommended to prevent excessive shrinkage or gapping in wood floors due to seasonal periods of low humidity.

**Non Heating Season and Coastal or Waterfront Areas – High Humidity.** During the non heating season proper humidity levels should be maintained by using an air conditioner, dehumidifier or by turning on your heating system periodically during the summer months. **Do not install in full bathrooms or powder rooms.**

Examine flooring for color, finish and quality prior to installation. If material is unacceptable, contact the seller immediately. Wood is a natural product and contains characteristics such as variations in color, tone and graining. Flooring is manufactured in accordance with industry standards, which allows manufacturing and natural defect tolerances up to 5% of the total installation. Installer should work from several cartons at the same time to ensure good color and shade blend. Installer should not install undesirable pieces.

Flooring warranties DO NOT cover materials with visible defects once they are installed. Installer and Owner are responsible for final inspection of flooring manufacture, grade and finish. Purchase an additional 5% of flooring to allow for cuts and an additional 10% if installing diagonally.

**WARRANTY NOTE:** Installer should provide owner with one carton end label from product installed for warranty purposes. Owner should retain carton end label and copy of invoice for their records. Excess flooring should be retained and stored in a climate controlled area for future repairs in the event planks are damaged.

The use of stain, filler or putty for correction is considered a normal practice and a routine part of installation.

**WARNING! DO NOT MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC “CUTBACK” ADHESIVES OR OTHER ADHESIVES.**

Previously installed resilient floor covering products and the asphaltic or cutback adhesives used to install them may contain either asbestos fibers and/or crystalline silica. The products in this carton do not contain asbestos. 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 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 the 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 detailed information and instructions on removing all resilient covering structures.
TOOLS:
BASIC TOOLS AND ACCESSORIES:
- Chalk Line
- Miter Saw
- Straight Edge
- Blue Tape
- Mechanical Fastener
- Cleats or Staples
- 15# Felt Paper
- Columbia Hardwood Floor Cleaner

PRE-INSTALLATION & JOBSITE CONDITIONS
STORAGE AND HANDLING:
Material should be stored on the job site for minimum of 72 hours before being installed. Open the cartons but do not remove the product from the cartons. Make sure the room temperature is set at a normal living temperature as described above. The flooring is acclimated and ready for installation when it has reached a moisture level consistent with the job site and normal living conditions.

Your solid hardwood flooring must undergo an acclimatization period (i.e. it must be stored in the room where it will be laid) for at least 72 hours prior to installation or test the floor with an appropriate moisture meter. The moisture levels should differ no more than 4% between the subfloor and the planks. For wood flooring plank products (products wider than 3") there should be no more than 2% moisture difference between the flooring and subfloor.

SUBFLOOR REQUIREMENTS
The following subfloor recommendations are intended to complement the installation of hardwood flooring as an interior finish. Hardwood flooring is not a structural component. These recommendations are not intended to supersede federal, state or local building codes, but as with many other interior finish products, may require modifying existing structural components for a successful installation.

Sub-floors should be level within ¼" in each 10' direction. High areas should be sanded flat. Low areas should be filled with latex leveling compound.

Building codes establish requirements for structural support components of flooring systems which may not provide adequate rigidity and support for proper installation and performance of a hardwood floor. Whenever possible, install flooring perpendicular to the floor joists for maximum stability.

NOTE: Avoid subfloors with excessive vertical movement or deflection because subfloor movement will telegraph through to the finished installation. Indications of excessive deflection include uneven finish wear, fastener release, squeaking, compromised or damaged locking systems, sectional contours such as bowing or dipping in floors and uneven flooring material. Nail or screw subfloor panels to secure boards with excessive vertical movement or deflection. If the subfloor has excessive vertical movement (deflection) before installation of the flooring, it is likely it will do so after installation of the flooring is complete. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures.

WOOD SUBFLOOR:
NOTE: As with many other interior finish products, modification of existing structural components may be required for a successful installation.

Wood subfloors should be well nailed or secured with screws. Nails should be ring shank and screws need to be counter sunk. The wood subfloor needs to be structurally sound (meaning subfloors without loose boards, vinyl or tile). If sub-floor panels are a single layer, less than ¾" thick, add another single cross layer for strength and stability (minimum 3/8" thick for a total of 1 1/8" thickness). Underlayment floor panels must be installed sealed side down. When used as a subfloor, allow 1/8" (3mm) expansion space between each panel. If spacing is inadequate, cut in with a circular saw. Do not cut in expansion space on tongue and groove panels.

When installing parallel to the floor joists it may be necessary to increase rigidity of the structural subfloor system by installing an additional minimum of 3/9" (9.5) approved underlayment floor panel.

Approved underlayment floor panels should meet or exceed the following:

Plywood: Must be a minimum CDX grade (exposure1) and meet US Voluntary Product Standard PST1 performance standard or Canadian performance standard CAN/CSA 0325-0-92. The preferred thickness is ¾" (19mm) as a subfloor (minimum 5/8" (16 mm) or 3/8" (9.5mm) as a floor panel underlayment.

Oriented Strand Board (OSB): conforming to US Voluntary Product Standard PS2 or Canadian performance standard CAN/CSA 0325-0-92 construction sheathing. Check the underside of panel for codes. When used as a subfloor, the panels must be tongue and groove and stalled sealed side down. Minimum thickness to be 23/32" (18 mm) thick when used as a subfloor or 3/8" (9.5mm) as floor panel underlayment.

Wafer board and Chipboard: Conforming to US Voluntary Product Standard PS2or Canadian performance standard CAN/CSA 0325-0-392. Must be ¾" (19mm) thick when used as a subfloor and 3/8" (9.5mm) thick when used as a floor panel underlayment.

CONCRETE SUBFLOOR:
Lightweight concrete: To test for lightweight or acoustical concrete, scrape a coin or key across the surface of the subfloor. If the surface powders easily or has a dry density of 100 pounds or less per cubic foot. If you have lightweight concrete, contact Technical Services at 888.387.9883, Option 1.

Sub-floors other than wood or concrete
Note: Perimeter glued resilient vinyl and rubber tiles are unacceptable underlayment. and must be removed.

Note: Particle board is not an acceptable subfloor. Terrazzo, tile and any other hard surfaces that are dry, structurally sound and flat, as described above, are suitable as a sub-floor for Columbia hardwood flooring installation. As above, the surface must be sound, tight and free of paint, oil, existing adhesives, wax, grease and dirt. Terrazzo and ceramic tile must be scuffed to assure adhesion.

Warning: Do not sand existing resilient tile, sheet flooring, backing, or felt linings. These products may contain asbestos fibers that are not readily identifiable. Inhalation of asbestos dust can cause asbestosis or other serious bodily harm. Check with local, state and federal laws for handling hazardous material before attempting the removal of these floors.

Radiant Heated Sub-floors
Columbia 3/8 Solid Hardwood floors should not be installed over Radiant Heated Subfloors.
**Subfloor Moisture Check:**

**NOTE:** To increase reliability, moisture testing should be performed after the HVAC system has been in operation for a minimum of 14 days. Excess moisture on any flooring substrate if not identified and corrected prior to installation will cause floor covering failure. Warranties DO NOT cover products installed over improperly prepared subfloors, substrates or environmental related deficiencies.

**Concrete Subfloor Moisture Content**

On and below grade applications are susceptible to moisture and should be tested for moisture prior to installation in several locations within the installation area. Acceptable conditions for above, on and below grade applications on concrete are:

- Less than 3 lbs./1000 sq. ft./24 hrs. Calcium Chloride Test (ASTM F1869)
- Less than 75% RH Levels in Concrete Using In-situ Probes (ASTM F 2170-02)
- No greater than 5% on a Tramex Concrete Moisture Encounter meter or equivalent concrete moisture meter.

**DO NOT INSTALL FLOORING IF MOISTURE TESTS RESULTS EXCEED RECOMMENDED LIMITS.**

**NOTE:**
New concrete slabs require a minimum of 60 days drying time before covering them with a wood floor. (Must be fully cured) Although initial moisture tests may indicate a dry slab, the moisture content of slabs may increase due to seasonal fluctuation or weather patterns. New construction should have a minimum 10 mil poly membrane between the ground and concrete.

**Wood Subfloor Moisture Content**

Test both wood subfloor and wood flooring for moisture content using a reliable pin type moisture meter. The subfloor material must not exceed 12% moisture content. The difference between the moisture content of the wood subfloor and the hardwood flooring must not exceed 4%. For hardwood products greater than 3” wide, the moisture content of the wood subfloor and hardwood floor should not differ more than 2%.

If subfloor moisture readings exceed recommended levels for concrete or wood, steps MUST be taken to reduce subfloor moisture. Steps could include waiting for subfloors to dry to acceptable levels or using an appropriate moisture barrier such as Mohawk’s Protech M901 Urethane Moisture Membrane.

**NOTE:** Basements and crawl spaces must be dry. Use of a 6 mil black polyethylene membrane is required to cover 100% of the crawl space earth. Crawl space clearance from ground to underside of joist should be no less than 18” and perimeter vent spacing should be equal to 1.5% of the total square footage of the crawl space area to provide cross ventilation.

To correct any subfloor conditions concerning moisture, either wait until the subfloor dries to meet specifications or use an appropriate moisture barrier. For more information concerning moisture conditions, contact Technical Service Department at 888-387-9883 Option 1.

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**BEFORE YOU START:**

- Plan your layout and determine the direction of the installation in the room. Planks installed parallel to windows accent the hardwood best.
- Remove existing base, shoe molding or threshold carefully. They can be used to cover the ½” expansion gap left around the perimeter of the room.
- Undercut doors and casings using a handsaw laid flat on a piece of scrap flooring. This will eliminate difficult scribe cuts.
- Sub-floors should be clean prior to the floor installation. Sweep the area to remove all dust and debris.
- Make sure the subfloor is dry to 12% moisture content or less.
- Blending of cartons: To achieve a uniform installation appearance, preselect and set aside hardwood planks that blend best with all trims and moldings. Install these planks next to best blended moldings.
- Floor should be installed blending planks from several cartons at the same time to ensure good color and shade mixture throughout the installation.
- Be attentive to staggering the ends of the boards at least 4”-6” (10-15 cm) when possible in adjacent rows.

Solid Hardwood flooring may be installed on or above grade provided that the sub-floor is:

- Flat - within ¼” in a 10’ radius.
- Dry - always test the sub-floor with the appropriate moisture meter. Installation cannot continue until the sub-floor moisture does not exceed 12% and the sub-floor and flooring moisture differ no more than 4%. Clean – all construction debris, soil, mud and any other objects on or adhering to the floor are scraped and swept away before the installation.
- Sound – All damaged or swollen sub-flooring should be replaced. Check the floor for squeaks / loose components, repair any found by adding fasteners or adhesive.

**INSTALLATION**

“Racking the Floor”

Whether your choose to install the floor with glue or staples, start by using random length planks from the carton or by cutting four to five planks in random lengths, differing by at least 6”. As you continue working across the floor be sure to maintain the 6” minimum stagger 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 a pre-finished wood floor be sure to blend the wood from several cartons to ensure a good grain and shading mixture throughout the installation.
GLUE DOWN INSTALLATION GUIDELINES:

Only Columbia Urethane Adhesive or Mohawk’s M908 Protack Urethane Adhesive and Mohawk’s M901 Protech Urethane Membrane applied with the recommended trowel, per installation instructions, are approved for glue down installation of Columbia ½ Solid Hardwood Flooring. When installing over concrete both M901 Protech Urethane Membrane and Columbia’s Urethane Adhesive or Mohawk’s M908 Protack Urethane Wood Flooring Adhesive Protection must be used together to meet the Manufacturer’s Warranty Requirements.

Caution: Only the wet lay method is approved with Columbia’s Urethane Adhesive, or Mohawk’s M-908 Protack Urethane Adhesive. All guidelines for Columbia’s and Mohawk Urethane Adhesive as well as Columbia Hardwood Flooring must be used. By not adhering to the guidelines you can VOID the Columbia Hardwood Flooring Warranty.

INSTALLING PRO-TECH M901 MEMBRANE:
Pro-Tech M901 Urethane Moisture Membrane: A trowel-applied membrane that improves the long term performance of direct glue-down wood flooring installations over concrete substrates.

TYPICAL TROWEL AND APPROXIMATE COVERAGE:
5/32” X 3/16” 40 TO 45 SQ. FT. /US GAL.

*Coverage may vary depending on substrate conditions.

USES:
For protection from concrete moisture (up to 25 lbs. MVER)
For reducing sound transfer in multi-story buildings
For improving flexibility and increasing bond strengths of installations

NOTE: do not apply over self-stick tile, sheet vinyl, old adhesives, metal, linoleum, laminate, particleboard or strip wood subfloors. Air temperature must be between 50°F and 100°F for applying Pro-Tech M901 Urethane Moisture Membrane.

APPLICATION:
1. Regulate temperature and humidity 72 hours before, during and after installation.
2. Complete undercuts before applying Pro-Tech M901. Include the additional 1/16” height of Pro-Tech M901 when calculating undercuts.
3. Pour Pro-“Tech M901 onto substrate (no mixing necessary).
5. Allow to dry completely (12 to 16 hours).
6. Correct any missed spots and voids with trowel’s flat side.
7. Allow repair areas to dry completely.
8. While membrane is fresh, clean tools using a urethane adhesive cleaner or mineral spirits. Pro-Tech M901 is extremely difficult to remove when cured.

Install 3/8” Hardwood flooring using either Columbia’s Urethane Adhesive or Mohawk’s Pro-Tack M908 Urethane Adhesive.

NOTES:
Product must be used in its entirety when opened. Lid cannot be resealed. Temperature and humidity will affect the curing time. The higher the temperature and humidity, the faster the cure.

Step 1
Select a starter wall. It is recommended to start the installation along an exterior wall; it’s more likely to be straight and square with the room. Measure out from the wall the width of two planks plus the proper expansion and mark each end of the room and snap your chalk line.

Step 2
Your chalk line. Mark each end of the room and snap two planks plus the proper expansion and measure out from the wall the width of an exterior wall; it’s more likely to be straight and square with the room.

Step 3
Install the first row of starter planks with the tongue facing the starter wall and secure into position. Alignment is critical and can be achieved by securing a straight edge along the chalk line (2x4’s work well), or by top nailing the first row with finishing nails (wood sub-floor), or spig/pin nails (concrete sub-floor). This prevents slippage of the planks that can cause misalignment.

Step 4
Once the starter rows are secure spread 2 ½ to 3 feet of adhesive the length of the room. (Never lay more adhesive than can be covered in approximately 2 hrs.) Place tongue into groove of plank or strips and press firmly into adhesive never slide planks or strips through adhesive. Use a white rubber mallet to fit planks snug together at side and butt ends. As you work clean any adhesive off the surface before it cures using clean Terry cloth towels and a moisture cure urethane remover or mineral spirits.

Clean Up
Use clean white Terry cloth towels to clean as you go along with a urethane remover or mineral spirits. Adhesive that has cured on the surface of floor is clean use 3M Blue Mask Tape (# 2080) to hold planks securely in place as you are installing and continue the process throughout the installation. Use caution when using a rubber mallet to butt material together, it can burnish the finish and cause marring.

STAPLE OR NAIL DOWN INSTALLATIONS:

Spread the moisture cured urethane wood flooring adhesive from the chalk line to the starter wall using the recommended trowel size specified by the glue manufacturer. It is important to use the correct trowel at a 45° angle to get the proper spread of adhesive applied to the sub-floor, which will produce a proper and permanent bond. Improper bonding can cause loose or hollow spots.

Note: Change the trowel every 2000 to 3000 square feet due to wear down of the notches. This assures you of getting the proper spread of adhesive.

Note: The planks along the wall may have to be scribed and cut to fit in order to maintain a consistent expansion space since most walls are not straight.

Note: If working on top of the floor use caution and continually inspect the installed flooring for gaps that may have developed. If gaps are visible then the gaps must be closed before the adhesive cures.

Clean Up
Use clean white Terry cloth towels to clean as you go along with a urethane remover or mineral spirits. Adhesive that has cured on the surface of the flooring can be difficult or impossible to remove, but mineral spirits is still recommended.

Light foot traffic is allowed after 12 hours. The 3M blue masking tape should be removed within 24 hours and any residue left from the tape should be cleaned off the flooring immediately. Use caution when walking on the flooring after the tape is removed until the adhesive has fully cured. The amount of time that it takes for the adhesive to fully cure will vary based on the environmental conditions in the home and should be determined by a professional hardwood flooring installer.
3/8” Solid Hardwood Flooring may be installed over wood sub-floors using staples or flooring cleats. When installing 3/8” solid wood planks or strips by nailing or stapling it is necessary to use the proper type of flooring stapler or nailer made for the thickness of the hardwood flooring that is being installed.

**Recommended Pneumatic Floor Stapler or Nailer**

When stapling, an 18 gauge, 1 1/4” staple or longer. When nailing an 18 gauge 1 3/4” to 1 3/8” cleat is recommended.

**Note:** The appropriate adapter for the thickness of the wood on some flooring staplers must be used.

**Step 1**

You must staple or nail 1” to 2” from the ends and every 4” to 6” along the edges. This will help insure a satisfactory installation. It is recommended to set the compressor PSI at 80 to 85lbs. initially and adjust as necessary to keep the staples from going through or breaking the tongues. Improper stapling techniques can cause squeaks in the floor.

Adjustments may be necessary to provide adequate penetration of the nail or staple into the nail bed. You want it flush in the nail pocket. Use a scrap piece of flooring material to set tools properly before installation.

**Note:** Before installation of the flooring begins, install a 6-mil polyethylene layer to completely cover the ground and approximately 6” up the foundation walls when installing on a wood subfloor with a crawlspace. The seams of the 6-mil poly should overlap 4” to 6” and should be taped to the foundation walls using an aggressive tape such as duct tape. This will retard moisture from below that is emitted from the soil.

In addition to the ground cover in the crawlspace, a 6-mil polyethylene layer or a 15lb felt or rosin paper must be installed over the subfloor prior to the installation of the wood flooring in order to reduce squeaks and noises created by the opposing floors.

**Installing 6-mil Polyethylene:**

Install the polyethylene parallel to the direction of the flooring and allow a 3” overhang at the perimeter. Make sure each run of polyethylene overlaps the previous run by 6” or more.

**Layout the job**

Measure out from the ends of your starting wall, 2 ¾” when installing 2 ¾” strip flooring or 3 ½” when installing 3” planks and mark both ends. Where possible lay the flooring at 90° angles to the floor joists. Make a chalk line along the starting wall using the marks you made.

**Beginning installation:**

**Note:** Expansion space is required along the perimeter of room(s) of intended installation, expansion space is dictated by the thickness of the product, for example, 3/8” thick floor requires 3/8” expansion space, ½” thick floor requires ½” expansion space, ¾” thick floor requires ¾” expansion space.

Place the planks with the tongue facing away from the wall and along your chalk line. Use brads or small finishing nails to secure the first starter row along the wall edge 1” to 2” from the ends and every 4” to 6” along the side. Counter sink the nails and fill with the appropriate filler that blends with the flooring installed. Place the nails in a dark grain spot in the board. The base or shoe molding will cover the nails when installed after completion of the installation.

**Final Touches:**

Install the proper trim molding at the doorways to achieve the transition and along the walls to cover the edges of any gaps along the wall due to irregularity.

Complete the job by using wood filler that coordinates with the installed hardwood flooring to fill any gapping along the joints or areas where brad nails were used in the trim or the flooring. Clean the finished floor with an approved Hardwood Flooring Cleaner.

Hardwood Floors are very easily maintained. No wax, no mess. Simply use Hardwood Floor Cleaner and a Terry cloth flooring mop.

**STEP ONE:** Sweep your floor to remove any particles that could scratch your floor.

**Warning:** Vacuums with a beater bar or power rotary brush head can damage a wood floor and never should be used.

**STEP TWO:** Apply Columbia Hardwood Flooring Cleaner directly to the Terry cloth flooring mop, **not** to the floor!

**STEP THREE:** Use a back and forth motion with the mop. When the Terry cloth cover becomes soiled, simply replace it with a clean one.

Cleaning the floor with a soiled cover could cause streaking. The Terry cloth cover becomes soiled, simply replace it with a clean one. Sweep regularly, with a soft bristle broom. Use a back and forth motion with the mop. When the Terry cloth cover becomes soiled, simply replace it with a clean one. Cleaning the floor with a soiled cover could cause streaking. The covers are re-usable so simple throw the cover in the wash and dry it as you would any towel. **DO NOT USE FABRIC SOFTENER** when washing Terry cloth covers.

**Tips & Warnings:**

- **Sweep regularly, with a soft bristle broom.**
- **Remove spills promptly and use approved Columbia Hardwood Flooring Cleaner and a clean white cloth.**
- **Use felt protectors under heavy pieces of furniture and chairs.**
- **Use protective mats at all exterior entrances.**
- **Spiked heels or shoes in need of repair can severely damage your floor.**
- **Replace hard plastic, metal casters or wheels on furniture with soft rubber casters or by using a protective mat under the casters.**
- **Never wet or damp mop your wood floors. Water can cause damage to wood flooring.**
- **Never use oil soaps, wax, liquid or other household products to clean your floor.**
- **The sun’s UV rays can change the color of your floor.**
- **Keep animal nails trimmed.**
- **Protect your floor when using a dolly for moving furniture or appliances. Never slide or roll heavy furniture or appliances across the floor.**
- **Use protective window coverings to protect hardwood floors from excessive heat during periods of direct sunlight.**
Exterior and interior walk off mats should be used at all exterior entrances to avoid exposure to moisture from tracking during period of inclement weather. Walk off mats should be routinely maintained to avoid becoming a soil source. Do not use mats or under mat cushions constructed of rubber of PVC. Instead use urethane back products.

**Hardwoods react to sunlight**

Hardwood contains certain types of acids in their cellular structure. With exposure to sunlight these acids begin to amber. The color change is referred to as patina. The wood will reach its own natural warmth and patina level and stop ambering. The amount of patina is directly related to the species, amount of acids and the level of sunlight. The entire floor will reach the same patina over time. This is often noticed after a rug is removed and the floor is noticeably different in color underneath. If you remove the rug and expose the entire floor to the same amount of light, it will even out over time and become uniform in color.

**Hardwood flooring will scratch and dent**

With today’s active lifestyles it is important to note that hardwood flooring can, and will, scratch and dent. See Tips & Warnings for protecting your hardwood floor. In order to prevent excessive abuse the use of strategically placed mats and area rugs as well as floor protectors on chair and table legs are a must.

**WARRANTIES**

A copy of the Warranty may be obtained by calling the Technical Service Department at 888-387-9883 option 1.