

# SOLID HARDWOOD FLOORING INSTALLATION

## Solid Hardwood Flooring Installation Instructions

### **INSTALLER / OWNER RESPONSIBILITY - VERY IMPORTANT**

INSTALLATION CONSTITUTES ACCEPTANCE of hardwood flooring, subfloor, substrate, the jobsite (including the ambient temperature and relative humidity), and all other variables that may affect the performance of wood flooring.

Somerset manufactures flooring, not finished floors; the flooring installer must complete the finished product. Many critical decisions must be made at the installation site, and therefore are the sole responsibility of the installer/owner. These include, but are not limited to; proper storage and handling, complete evaluation of site conditions including moisture testing of the site and flooring, acclimation of flooring to normal living conditions, site preparation, flooring layout, milling, grade and color, proper installation methods, and cleanup. DO NOT INSTALL if there is any question regarding acceptability of flooring, including stain color consistency and sufficient quantity to complete the job.

### **Site Conditions, Handling, and Storage (NWFA Installation Guidelines, Sec. I):**

Somerset solid hardwood flooring may be installed above or on grade, not below grade. Somerset floors should be installed after all other construction that may affect them is completed. Concrete, drywall, plumbing and any other "wet work" should be thoroughly cured. Factory finished flooring is finished woodwork, handle carefully to avoid damage.

- Keep flooring dry at all times Provide good air circulation around pallets, bundles, or cartons. Do not stack flooring bundles or cartons more than three layers high, and maintain a flat stack. Record flooring moisture content upon delivery and at time of installation, and retain these records. Acclimate Somerset flooring to proper site conditions; refer to NWFA Installation Guidelines, Sec. I, Ch. 2 for further information.
- HVAC must be in operation before, during, and after installation (refer to NWFA Installation Guidelines, Sec. I, Ch. 1, Part 1). A temperature of 70 degrees F +/- 10 degrees and a relative humidity between 35-55% is recommended. Heating units or uninsulated ductwork close to the flooring or subfloor may cause "hot spots" which must be eliminated prior to installation.
- Radiant Heat: Wood flooring can be installed over radiant heat as long as you understand radiant heat and how it can impact wood flooring, what precautions to take, and what type of wood flooring to use. Somerset engineered hardwood flooring may be installed over many radiant heat systems (excluding hickory and exotic (imported) species). As these precautions and installation methods are very detailed, please consult NWFA Installation Guidelines, Sec. IV, Appendix H for details. Problems typically associated with radiant heat systems are excluded from coverage under the Somerset warranty.
- Moisture testing is critical (refer to NWFA Installation Guidelines, Sec. I, Ch. 3). Confirm proper drainage exists around the structure. In crawl spaces, exposed earth must be fully covered with minimum 6-mil polyethylene sheeting. Crawl space vents must be open at all times, and must equal at least 1.5% of the total square footage of the crawl space. Basements must be dry and remain dry.

### **Subfloor Types And Conditions (NWFA Installation Guidelines, Sec. II)**

#### **• General:**

The subfloor must be clean, dry, flat (within 3/16" in 10'), and structurally sound. Correct any joints or areas that are not flat. Secure any loose boards or panels.

#### **• Wood: (refer to NWFA Installation Guidelines, Sec. II, Ch. 4)**

CD Exposure 1 plywood and OSB Exposure 1 subfloor panels are appropriate subfloor materials (grade stamped US PS1-95). Solid board subfloors should be 1" x 6" nominal, Group 1 dense softwoods, #2 Common, KD. Minimum single layer subfloor thickness is 5/8" on 16" o.c. joists or 3/4" on 19.2" o.c. joists. The flooring must run perpendicular to the floor joists, or additional subfloor thickness is required. Hardwood flooring should be between 6 and 9% moisture content, and the subfloor should be within 4% of flooring m.c. (2% on 3" or wider flooring). In no case should any wood moisture reading exceed 12%.

#### **• Concrete: (refer to NWFA Installation Guidelines, Sec. II, Ch. 5 & 6)**

Somerset solid hardwood flooring may be installed over concrete subfloors; refer to NWFA for details on alternate installation methods. Concrete must be tested for moisture. NWFA Installation Guidelines, Section I, Ch. 3, Part 3 should be consulted carefully. Moisture barrier and adhesive systems must be used correctly and must be compatible (check with the moisture barrier/adhesive manufacturer for details). The stresses inherent in solid hardwood flooring make it impossible to guarantee perfectly straight pieces; this is not considered a defect. Installation with adhesives therefore may require a higher waste factor and/or alternative methods of achieving tight joints.

## **Installation (NWFA Installation Guidelines, Sec. III, Ch. 9)**

### **Preparation**

Allow 3/4" expansion space between the wood flooring and any walls or other obstructions. Undercut door jambs, casings, drywall, etc. Over the subfloor, install a layer of #15 building felt (or equivalent perm rating), overlapped 4" at the seams. See NWFA, Sec. I, Ch. 3, Part 2-A for more detail on acceptable moisture barriers.

### **Layout**

The best appearance is usually achieved by installing parallel to the length of the room, but always install perpendicular to the floor joists unless special sub-floor conditions are met (see wood subfloors). While each job is unique, it is critical to establish a primary working line for the entire job (usually through the longest continuous area to be installed) and reference all flooring layout from that line. Always rack out the flooring before installing to avoid clustered end joints and repeating patterns. Rack out the entire job to assure you have enough flooring to complete the entire job and that the stain color is consistent.

### **Fastening**

Use caution to avoid edge and face damage during installation. Special footer plates are available for flooring tools to protect factory finished flooring faces and edges.

Use backer boards of 1/2" plywood ripped to an appropriate width to establish straight lines. Backer boards should be secured to the sub floor and carefully aligned with starter lines.

Use flooring fasteners (cleat or staple) minimum 1-1/2", (avoid conflict with concrete under subfloors and radiant heat systems). Air pressure should be regulated so the fastener seats properly, but does not split the tongue or wood below it. Nailing schedule is standard NOFMA, for strip 8-10", 1-3" from end joints, for plank 8". Refer to NWFA Installation Guidelines, Sec IV, Appendix F.

Face nail only as required with 7d or 8d finish nails or cleats, 1/2" from the groove, pre-drilling the nail holes to prevent splitting. Nailing schedule is the same as with blind fasteners (above). Face nails should be counter sunk and covered by molding or properly filled.

### **Adhesive/fastener Installation:**

On wider width planks (4" and wider), combining adhesives and fasteners is an option to minimize flooring movement after installation. Underlayment paper must be omitted when using adhesives. Use a quality hardwood flooring adhesive recommended by the adhesive mfg for solid hardwood installations. Follow all practices recommended by the adhesive manufacturer including vapor barrier systems, adhesive temperature, room temperature and humidity, proper ventilation, spread rate, open time, safety procedures and equipment, clean up and cure time. Avoid allowing adhesive residue to dry on the face of the flooring. Special cleaners are available (from the adhesive manufacturer) to remove any residue.

### **Finishing Touches:**

Somerset offers five standard molding profiles factory finished to blend with your Somerset wood floor. These moldings will address most trim and transition situations quickly and cost effectively, and should be ordered with the flooring to avoid needless delays in closing.

Fill any nail holes or small cracks with the proper filler (Somerset Touch-Up Kits are available). Leave the touch up kit with your customer for their use as needed.

Clean the floor thoroughly and remove all scraps and debris. Some solvents may attack the finish, so test any cleaner for finish compatibility before using on installed flooring. Somerset recommends that the installer leave care and maintenance information with the consumer. While some installers might leave floor care products for the consumer, we suggest you at least leave information as to how the consumer can purchase floor care products from the retailer or online at [www.somersetfloors.com/market](http://www.somersetfloors.com/market).

Applying additional finish over the factory finish may cause problems and does not improve durability or seal the joints. Any finish materials used that are not recommended by Somerset Hardwood Flooring will void your warranty.

If you have installation questions, contact Somerset, your Somerset distributor, or the National Wood Flooring Association ([www.nwfa.org](http://www.nwfa.org)).

### **Somerset Hardwood Flooring**

P.O. Box 1355  
Somerset, Kentucky 42502

NO WARRANTIES APPLY TO ANY PRODUCTS NOT SPECIFICALLY ADDRESSED IN SOMERSET'S WRITTEN WARRANTY DOCUMENT.